# Acorn User

THE ALTERNATIVE FOR POWER COMPUTING

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**VIRTUAL RISC PCs**
PCs Battle it Out

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Encrypted RISC OS

**FORTRESS STORAGE**
Hard Drive with Attitude

**ACORN USER RELOCATED**
What's happening to us?

*And much much more...*

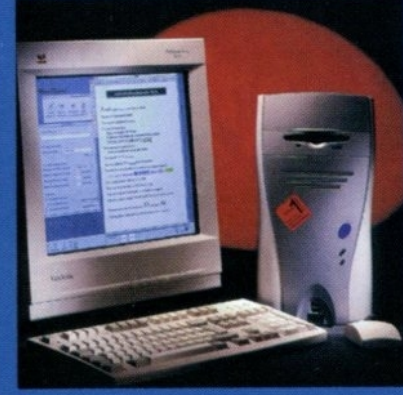





ISSUE 267 CHRISTMAS 2003 £4.20

# Liquid Silicon

• Computers & Music Hardware • Upgrades • Software • Cables etc •



## Iyonix Computers

Special offer until 12/12/03 – Free USB memory card reader with all Iyonix machines.
Special offer until 28/2/04 – Free iiyama 1451 19" monitor with CDRW Iyonix machines.

| | |
|---|---|
| Iyonix (128Mb, 40Gb, CD) | £1269.00 |
| Iyonix (128Mb, 80Gb, CDRW) | £1319.00 |
| Iyonix (512Mb, 100Gb, CDRW) | £1419.00 |
| Aemulor | £58.75 |
| Podule backplane | £49.00 |
| USB to Parallel converter | £25.00 |
| Upgrades/Expansion cards/Extras | £Ask |



## Microdigital Computers

| | |
|---|---|
| Alpha M1 Portable, 14.1" | £925.00 |
| Alpha M2 Portable, 15.1" | £1070.00 |
| Alpha M3 Portable, 15.1" | £1170.00 |
| Alpha M4 Portable, 15.1", 1400x1050 | £1295.00 |
| Alpha M5 Portable, 17" widescreen, 1440x900 | £1415.00 |
| Omega standard tower case | £1355.00 |
| Omega midi tower case | £1399.00 |
| Omega desktop case | £1402.00 |
| Upgrades/Expansion cards/Extras | £Ask |

## RiscStation Computers

| | |
|---|---|
| R7500 Lite+ | £656.75 |
| R7500 NetWorx | £480.50 |
| R7500 NetWorx HD | £539.30 |
| R7500 Scorcher | £797.50 |
| R7500 Scorcher Twindeck | £833.00 |



## iiyama CRT Monitors

| | |
|---|---|
| 1352 (15" FST) | £98.40 |
| Vision Master 1403 (17" FST) | £113.40 |
| Vision Master Pro 1413 (17" NF) | £131.05 |
| Vision Master Pro 413 Ivory or black (17" HBNF) | £166.40 |
| Vision Master 1451 (19" FST) | £144.65 |
| Vision Master Pro 454 (19" NF) | £288.80 |
| Vision Master Pro 455 (19" HBNF) | £207.20 |
| Vision Master 506 (21" FST) | £431.60 |
| Vision Master Pro 513 (22" NF) | £431.60 |
| Vision Master Pro 514 (22" NF) | £549.90 |

## iiyama LCD Monitors

NEW LOW PRICES

Key: I/B/S = Ivory or black or silver colour.

| | |
|---|---|
| ProLite E383 (I/B/S) 15" LCD, 1024x768, 25ms | £262.95 |
| ProLite H380 (I/B) 15" LCD, 1024x768, 25ms | £316.00 |
| ProLite E430 (I/B/S) 17" LCD, 1280x1024, 16ms | £348.65 |
| ProLite E431S (I/B/S) 17" LCD, 1280x1024, 16ms | £352.75 |
| 4315UT (B) 17" LCD, 1280x1024, 25ms | £469.00 |
| 4332UT (I/B) 17" LCD, 1280x1024, 25ms | £486.00 |
| ProLite H430 (I/B) 17" LCD, 1280x1024, 25ms | £492.80 |
| 4612DT (I/B) 18.1" LCD, 1280x1024, 30ms | £492.80 |
| 4637UT (I/B) 18.1" LCD, 1280x1024, 35ms | £560.80 |
| ProLite E481S (I/B/S) 19" LCD, 1280x1024, 25ms | £511.85 |
| 4821UT (I/B) 19" LCD, 1280x1024, 25ms | £724.00 |
| 4831D (I) 19" LCD, 1600x1200, 30ms | £783.85 |
| 5131DT (I/B) 20.1" LCD, 1600x1200, 25ms | £1118.40 |
| ProLite H540S (I/B) 21.3" LCD, 1600x1200, 20ms | £1199.95 |
| 5611DBK 22.2" (B) LCD, 3840x2400, 50ms | £5399.00 |

Monitors are also available from AOC, CTX, IBM, Phillips, Samsung and Sony.







Call us for your nearest UK dealer for the POSum point of sale systems and the EBMS business management solutions.

Our bar coding software produces Draw files of the following formats: EAN 8, EAN 13, UPC A, ISBN, ISSN, Code 39 (Normal and Full ASCII), Telepen (ASCII and Numeric) and Binary.

Further information is available.
!BarCoder – £49.95
OCR fonts – £37.01

A bar code creation service is also available if you only need a small number of codes produced.







Our !BarReader driver software to allow bar codes to control most desktop software and is supplied free with a reader.

Further information is available.
BarReader – £29.95

Please ask about current pricing and availability for CCD & laser scanners, thermal printers, label printers etc. plus all other point of sale equipment.



## Confused? Need more info? Just ask!







Discs (e.g.20x black discs – £6.28)
Batteries (e.g. 4x AA Xtra alkaline – £2.24)
Also Audio & Video Tapes, Mini discs, CDRs, DAT tapes etc.

# Liquid Silicon




| | |
|---|---|
| EasiWriter Pro+ CD | £76.95 |
| FastSpool+ | £17.50 |
| Grapevine | £24.95 |
| Heroes of Might & Magic 2 | £32.00 |
| Krisalis Collection Gold CD | £25.95 |
| LanMan98 | £39.25 |
| OHP 2 | £37.95 |
| Oregano 2 CD | £97.95 |
| Other Worlds CD | £17.95 |
| Ovation Pro | £138.95 |
| Personal Accounts | £44.00 |
| Photodesk Olympic CD | £127.95 |
| Prophet 3+ Pro | £179.00 |
| Quake | £22.00 |
| R-Comp Internet Suite | £73.95 |
| Schema 2 | £58.95 |
| SiteWriter | £58.95 |
| Sleuth 3 | £48.95 |
| Sound Plugin for browsers | £11.50 |
| SVG Plugin for browsers | £11.50 |
| Syndicate+ | £26.50 |
| TBA Games CD | £20.00 |
| TechWriter Pro+ CD | £99.95 |
| TEK | £29.95 |
| Virtual A5000 | £29.95 |
| Virtual RPC-SE (with RISC OS 4) | £160.50 |

## Books & Manuals

| | |
|---|---|
| RISC OS Manuals CD | £29.95 |

## Memory Upgrades

Please call to check current prices.

Risc PC/A7000/RiscStation/Mico SIMMs:

| | |
|---|---|
| 16Mb FPM | £28.20 |
| 32Mb EDO (HC, works in Risc PCs) | £26.75 |
| 64Mb EDO (works in Risc PCs) | £39.00 |
| 128Mb EDO | £77.55 |
| 2Mb VRAM (upgraded 1Mb cards) | £49.95 |
| 64Mb Compact Flash memory | £33.50 |
| 128Mb Compact Flash memory | £46.99 |
| 64Mb Secure Data | £49.95 |
| 128Mb Secure Data | £64.95 |
| 64Mb SmartMedia | £35.95 |
| 128Mb SmartMedia | £56.95 |

## Music & Sound Section

Please call for other musical items

MIDI interfaces:

| | |
|---|---|
| MIDI Max II internal 1x1x1 | £93.95 |
| Parallel Port 1x1x1 (back in stock) | £92.95 |
| RiscStation MIDI drivers & cable | £17.95 |
| RiscStation XG card & cable | £116.95 |
| RiscStation XG card, cable & keyboard | £245.95 |
| Sibelius 6 | £97.95 |
| Sibelius 7 Student | £245.95 |
| Sibelius 7 | £394.95 |
| Sibelius 3 for PC/Mac is also available | |
| Sound module serial port driver | £37.95 |

## Other Hardware

| | |
|---|---|
| 10/100BaseT ethernet card (RCI/Simtec) | £89.00 |
| Special limited time offer | £79.00 |
| Cordless keyboard & optical mouse | £79.99 |
| Cordless Mouseman Optical PS2/USB | £54.95 |
| Mouse (Genius/STD Acorn-compatible) | £19.95 |
| Mouse (PS/2 Logitech) | £14.99 |
| PS2MouseMini adaptor for older machines | £18.95 |
| Printers | £Call |
| Risc PC second slice (no PSU) | £95.00 |
| RISC OS 4 (fitting & Select available) | £85.00 |
| RiscStation second serial port | £10.95 |
| Scanners | £Call |
| StrongARM & RISC OS 3.7 upgrade | £269.00 |
| StrongARM & RISC OS 4 upgrade | £299.00 |
| ViewFinder card (32Mb) | £240.00 |

## Other Software

| | |
|---|---|
| Abuse | £20.00 |
| ArtWorks 2 CD | £165.00 |
| C/C++ (26/32-bit version) | £195.00 |
| CD Burn | £55.95 |
| Chaos Engine | £19.50 |
| DataPower 2 | £120.95 |
| Doom+ CDs | £30.00 |
| Desktop Repton CD | £19.90 |
| DialUp 2 & Messenger Pro | £56.90 |

## Second hand machines and components – get them while you still can!!! :

These machines have mainly come from schools and businesses. As such there are various brandings, labels, markings, scratches, very occassional broken bits (e.g. front flaps) on the cases. All machines have been generally cleaned and air dusted inside to get rid of most of the dust, however the cases have not been meticulously cleaned as this would take a long time and increase the prices considerably. Any machines which have PC cards are usually 486 cards, but as these are basically worthless, their value has not been taken into account (and they might not have all the software on the disc to work them anyway). Get free carriage if you also take a monitor (the 'b' indicates an additional £10 carriage charge). Keyboard, mouse and mains cable included. Single slice machines do not have backplanes unless specified. Ethernet cards etc. can be taken out if not required. There is a three month warranty on these machines and they are supplied 'as seen', so to speak. All details are subject to change and please check availability before ordering.

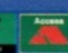
| | |
|---|---|
| A7000, RISC OS 3.6, 8Mb, 406Mb HD, 10BaseT ethernet card, fan | £60.00b |
| A7000, RISC OS 3.6, 18Mb, 406Mb HD, 10BaseT ethernet card | £60.00b |
| A7000, RISC OS 3.6, 20Mb, 406Mb HD, Combi ethernet card | £60.00b |
| A7000, RISC OS 3.6, 20Mb, 406Mb HD, Combi ethernet card, backplane & fan | £70.00b |
| A7000, RISC OS 3.6, 20Mb, 406Mb HD, Combi ethernet card, CD drive & fan | £70.00b |
| A7000+, RISC OS 3.71, 16Mb, 163Mb HD, 10BaseT ethernet card | £70.00b |
| A7000+, RISC OS 3.71, 24Mb, 163Mb HD, 10BaseT ethernet card | £70.00b |
| A7000+, RISC OS 3.71, 24Mb, 203Mb HD, 10BaseT ethernet card | £70.00b |
| A7000+, RISC OS 3.71, 16Mb, 1225Mb HD, 10BaseT ethernet card | £80.00b |
| A7000+, RISC OS 3.71, 24Mb, 1225Mb HD, 10BaseT ethernet card | £80.00b |
| A7000+, RISC OS 3.71, 24Mb, 1225Mb HD, 10BaseT ethernet card | £80.00b |
| A7000+, RISC OS 3.71, 24Mb, 1225Mb HD, 10BaseT ethernet card | £80.00b |
| A7000+, RISC OS 3.71, 24Mb, 1225Mb HD, Combi ethernet card | £80.00b |
| A7000+, RISC OS 3.71, 16Mb, 1221Mb HD, 10BaseT ethernet card, CD drive | £90.00b |
| RPC 610, RISC OS 3.5, 36+1Mb, 515Mb HD, 10BaseT ethernet card, PC card | £130.00b |
| RPC 610, RISC OS 3.5, 20+1Mb, 203Mb+327Mb HDs, CD drive, 16-bit soundcard HCCS IDE card, Combi ethernet card & AccessNT, PC card, two slices | £190.00b |
| RPC 710, RISC OS 3.5, 40+1Mb, 203Mb HD, Combi ethernet card | £120.00b |
| RPC 710, RISC OS 3.6, 36+1Mb, 515Mb HD, 10BaseT ethernet card, PC card | £130.00b |
| RPC 710, RISC OS 3.6, 36+1Mb, 515Mb HD, 10BaseT ethernet card, PC card | £130.00b |
| RPC 710, RISC OS 3.6, 36+1Mb, 515Mb HD, 10BaseT ethernet card, PC card | £130.00b |
| RPC 710, RISC OS 3.6, 36+1Mb, 515Mb HD, 10BaseT ethernet card, PC card | £130.00b |
| RPC 710, RISC OS 3.6, 36+1Mb, 515Mb HD, 10BaseT ethernet, PC card, noisy fan | £130.00b |
| RPC 710, RISC OS 3.6, 36+1Mb, 515Mb HD, 10BaseT ethernet, PC card, noisy fan | £130.00b |
| RPC 710, RISC OS 3.7, 16+1Mb, 203Mb HD, 10BaseT ethernet, Cumana CD drive | £150.00b |
| RPC 710, RISC OS 3.7, 16+1Mb, 203Mb HD, Combi ethernet card, CD drive, PC card | £150.00b |
| RPC 710, RISC OS 3.5 8+1Mb, 406Mb HD, Combi ethernet card, Cumana CD drive, PC card, two slices | £180.00b |
| RPC SA, RISC OS 3.7, 16+1Mb, 203Mb HD, Combi ethernet card | £280.00b |
| RPC SA, RISC OS 3.7, 16+1Mb, 203Mb HD, Combi ethernet card | £280.00b |
| RPC SA, RISC OS 3.7, 16+1Mb, 203Mb HD, Combi ethernet card, PC card | £280.00b |
| RPC SA, RISC OS 3.7, 16+1Mb, 406Mb HD, Combi ethernet card | £290.00b |
| RPC SA, RISC OS 3.7, 16+1Mb, 203Mb HD, Combi ethernet card, CD drive, PC card | £300.00b |
| RPC SA, RISC OS 3.7, 16+1Mb, 203Mb HD, Combi ethernet card, CD drive, PC card | £300.00b |
| RPC SA, RISC OS 3.7, 20+1Mb, 203Mb HD, Combi ethernet card, CD drive | £300.00b |
| RPC SA, RISC OS 3.7, 64+1Mb, 203Mb HD, 10BaseT ethernet card, CD drive | £310.00b |
| RPC SA, RISC OS 3.7, 12+1Mb, 2014Mb HD,Cumana CD,10BaseT ethernet, PC card | £320.00b |
| Two slot backplanes | £10.00 |
| Combi/10BaseT ethernet cards | £30.00 |
| Internal IDE CD drives | £Call |

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http://www.liquid-silicon.com

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## Iiyama 19" 1451

Special Offer



1600x1200 @ 75Hz
30-96KHz
0.26mm mask

**£130** + £10 delivery

## Laptops running RISC OS!

**Wide range of laptops with preinstalled WindowsXP & VirtualRPC-SE (RISC OS 4)**

3 year warranty option!



**from £900** inc VAT +£15p&p

**For details please phone or see www.cjemicros.co.uk/laptops**

Just in!

## Samsung ML1750

**High spec. heavy duty!**
250 sheet tray, 8MB, PCL, 16ppm, parallel & USB ports

**£230**† +£10p&p

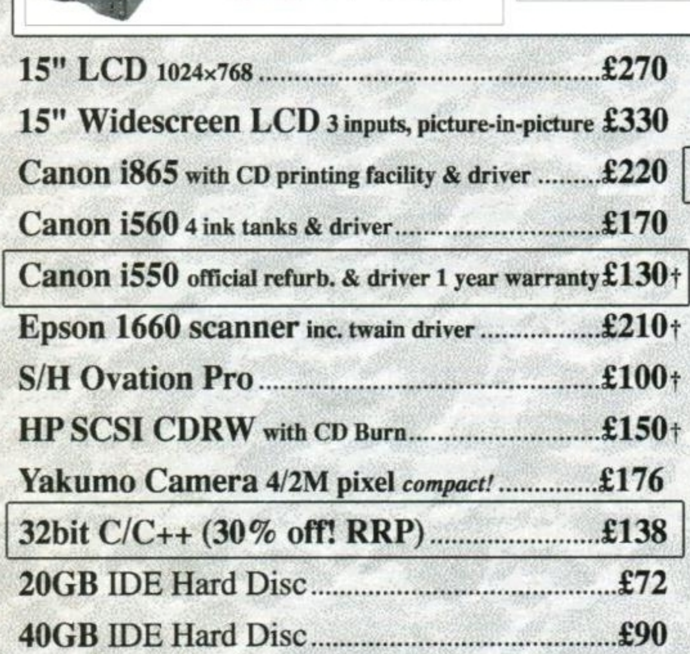
## Network Card

10baseT & 2
for RPC/A7000
£45†

## MidiMAX II

Special Offer

*Midi podule with:*
In, Thru and two Out ports
**RRP £93**
**Offer Price £50**



| | |
|---|---|
| **15" LCD** 1024x768 | **£270** |
| **15" Widescreen LCD** 3 inputs, picture-in-picture | **£330** |
| **Canon i865** with CD printing facility & driver | **£220** |
| **Canon i560** 4 ink tanks & driver | **£170** |
| **Canon i550** official refurb. & driver 1 year warranty | **£130**† |
| **Epson 1660 scanner** inc. twain driver | **£210**† |
| **S/H Ovation Pro** | **£100**† |
| **HP SCSI CDRW** with CD Burn | **£150**† |
| **Yakumo Camera** 4/2M pixel *compact!* | **£176** |
| **32bit C/C++ (30% off! RRP)** | **£138** |
| **20GB** IDE Hard Disc | **£72** |
| **40GB** IDE Hard Disc | **£90** |
| **160GB** IDE Hard Disc (7200rpm) | **£185** |

**EDO RAM** 32MB £30 64MB £45 **128MB £85**
**FPM RAM** 64MB £50 **128MB £90**

| | |
|---|---|
| **S/H RPC with Kinetic upgrade** 162MB 20GB | **£540**† |
| **S/H StrongARM cards** | *from* **£150**† |
| **S/H Kinetic upgrade** 128MB | *from* **£300**† |
| **4 way MyHopper KVM** with cables .. *Price drop* | **£135** |
| **IDE CDRW** ***Burn Proof*** **523252** inc CD Burn | **£135** |
| **Canon S400 ex demo** 4 ink tanks! | **£110**† |
| **S/H EagleM2 Audio/Video digitiser** | **£160** |

## 200 Title Software Sale!

**20%-90% Off RRP on selected titles**
**see: www.cjemicros.co.uk/swoffers/**

| | |
|---|---|
| **AKF85 17" Monitor** refurbished, two inputs! | **£85** |
| **HP 3822** Inkjet printer inc. driver | **£120** |
| **S/H RiscPCs** | *from* **£80** |
| **AGFA SCSI Scanner** 600x1200DPI Ex Demo | **£90**† |

Free 19" Monitor!

**iYONIX pcs** from £1249 + £20 delivery Please phone or see: *http://www.cjemicros.co.uk/iyonix/*

## ViewFinder

With TV out!

**Now with TV output & 128MB!**

Also now supports 2 and 4 colour modes & with extra (DVI-I) output (Software support in development) **£POA**

**32MB ViewFinder £175**

AGP upgrades for existing ViewFinders to 128MB £156

## 16MB Osaris PDA

Last Few

**ARM7 CPU, EPOC OS**
**Backlight and Compact Flash slot**



**£125**

One year warranty



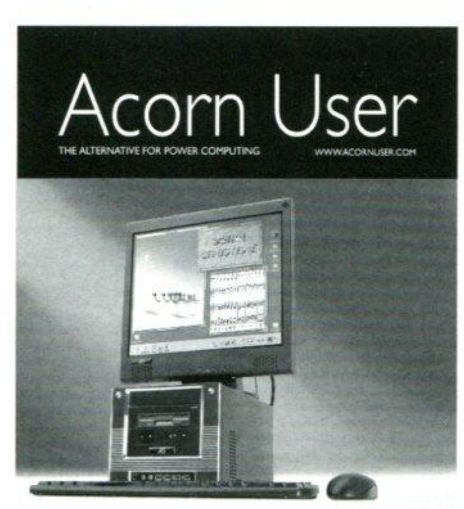

& 4D

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Official orders welcome. E&OE. Prices subject to change & stock.
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Christmas 2003 Issue 267







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**From February first week of the month**

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# Editor's Comments

Tau Press has been the publisher of the Acorn User magazine for the past five years. We took over on issue 201, after the ill-fated Phoebe launch and cancelled Acorn show. The secret of good comedy ... timing.

In that time we have published, not too hard to figure out, 66 editions including this one, the last one produced by Tau Press Ltd. The magazine will be moving on, though barely five miles from the current Tau offices in Stockport, to the Finnybank offices in Sale.

Acorn User was torn from the jaws of death with IDG, when that branch of the global company was closed and most of the magazines sold to Dennis Publishing. If Acorn User had been in the IDG stable when that happened it would have been closed.

Why is Tau Press passing on the magazine? Because we are moving into other fields now, although we do also produce the Robot Wars Club magazine we are now far more of a design, marketing and PR company than a magazine publisher.

This is not to say that I will not continue to be associated with the market, my programming knowledge will be brought to bear on an already agreed series in the new magazine. But this will now be on a personal rather than business basis.

I took delivery of my first BBC Micro at the Open University in late 1981 and have never looked back. With a degree in Computer Science I welcomed the clean logical design of the 6502 processor, the BBC Basic language and the intelligent and open interface design, after having had to deal with the nastiness of the Z80 and CP/M. Nothing has really changed. Now I appreciate the ARM chip and RISC OS, and loathe the Pentium range with Windows.

So I hope you enjoy this final issue and we can all look forward to a bright new RISC OS future with Acorn User magazine, even if the name is changed. Finnybank may well produce even more editions than we have.

And finally, just to wrap up an unfinished story, I was delighted to hear that ExpLAN are fine and weathered their spam storm. Good luck to them.

Steve Turnbull




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## SAVE MONEY !!



Share keyboard, monitor and mouse between several machines!

Our Keyboard Controlled Switch allows a single keyboard, monitor and mouse to be used with several machines!

Fully buffered - machines may be powered up in any order. Supplied with UL2919 rated cabling. Enhanced for RISC OS machines - if it hasn't got our name outside the box it doesn't have our modifications inside the box

Simple to set up with full instructions. Simply the best quality switch available for RISC OS machines.!

2 port switch: £89inc
4 port switch: £129inc
Includes all cabling etc.

PS2MouseMini only with a switch. £10

Don't compromise on a retail PC - let us give you a no-obligation quote for a custom machine which does what you need!

## Simtec USB card

Provides USB expansion to RISC OS machines. Supplied with drivers for keyboards, mice, joysticks etc.

NEW PRICE £69
+ del + VAT = £89inc

4 port hub £10 with card (£20 alone)

## Epson 1660 scanner

USB scanning at true 3200x1600dpi. Includes transparency adaptor, USB cable etc.



Scanner only £179.00

TWAIN and scanning software £35

SPECIAL OFFER:
Scanner, USB card and FREE TWAIN and Scanning Software: £268

## Pen Drives and MP3!

Simply transfer data between RISC OS and PC machines.

64MB: £37.95
With MP3 playback £79

128MB: £57.95
With MP3 playback £99

256MB: £97.95
MP3 version soon!

## UPS

A sensibly specified uninterruptable power supply

£64.95 + £10 carriage

£74.95inc

- 650VA rated
- Up to 45 minutes backup
- AVR (will boost or buck mains voltage if out of tolerance)
- 320 Joule mains spike protection RFI filtering
- Filtered and protected modem sockets
- Supplied with cabling to attach to 2 machines/devices

## NET 100

10/100BaseT Network card for RiscPC/A7000



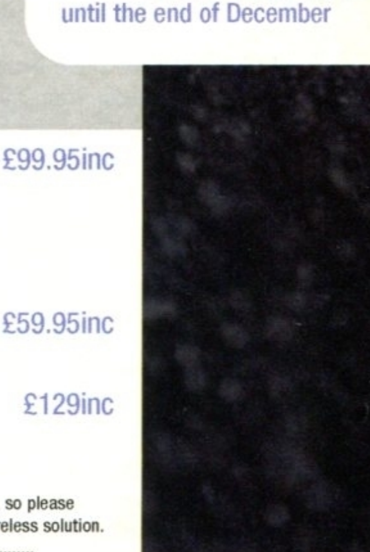
- Provision for access to 10 or 100 Megabit networks
- Several hundred KBytes of FLASH memory for drivers
- Provision to modify FLASH con tents for other drivers
- Lower latency than conventional 10 Megabit cards
- High integration brings affordable networking

Only £69
+ del + VAT = £89inc

RISC OS to PC
(Net100, PC card, xover) = £110inc

Network switches:
5 port = £45inc
8 port = £75inc
Lanman98 = £41inc

Cables and other networking devices available



To celebrate the production of the 1000th NET100 card, there is a £10inc discount until the end of December

## Got a Digital Camera or a Palmtop? You need DIGIFLASH!!!

Supplied with a new, full read/write filing system allow owners of the Simtec USB card to use virtually all camera card formats.

DigiFlash2 read/writes SmartMedia and Type1 Compact Flash.

DigiFlash7 adds Type2 CF, Memory Stick, Secure Digital, MultiMedia Card and Microdrive.

Digiflash2: NEW PRICE £39.95
Digiflash7: NEW PRODUCT £59.95




## Sorry for "shouting".

but the reference to USB in our previous advert seemed to confuse one dealer.....

To be clear: If you have a Simtec USB card already, or are looking to add one to your machine, you might consider using a wireless USB adaptor to connect your machines wirelessly.

If you do not wish to take advantage of USB (for example if you have no podule slots spare), or if you have an Iyonix machine our flexible access point / media converter will allow you to convert any wired network into a wireless one. Simply add a NET100 card if required.

All products comply with IEEE802.11b and interwork with other compliant systems.

Wireless USB adaptor: plugs into RISC OS machines fitted with Simtec USB card. Stack based on acclaimed NET100 code: £79.95

PC version (no RISC OS drivers) £69.95

Wireless Access Point / Bridge / Media Converter: This versatile device allows single machine or groups of machines fitted with network cards to be integrated into a wireless network. £99.95inc

Wireless PCMCIA Card: For use with Portable machines: £59.95inc

Wireless Broadband Router: Probably the most impressive broadband router and firewall yet! £129inc

We prefer to talk through every install, so please contact us if you are considering a wireless solution. We promise not to leave you confused........

# Software from APDL

As the Christmas season approaches, APDL are putting together a few complementary collections as an aid to making your Christmas RISC OS software purchases.

TALKING CLOCKS provides users with a fun and exciting way of learning how to understand clocks. Offering a fun graphical layout, exciting sounds and based entirely within the RISC OS desktop Talking Clocks provides a superb introduction to telling the time and can prove quite addictive. A number of printed support materials are supplied.

TRIPLE 'R' COLLECTION includes four fun and easy-to-use educational titles covering numeracy and literacy. Aimed at children of between three and fifteen there's a lot of potential in this package; supplied on a single CD-ROM together with a small printed manual. APDL do have a small number of keyboard overlays available, at extra cost.

The previous RRP of Talking Clocks was £34.95; with the Triple 'R' Collection almost £80.00; until the end of December this year you can get BOTH for £20 plus £2 postage and handling within the UK. If you'd like to order from overseas, please e-mail first to confirm postage.

APDL have also updated versions available of DrawWorks Select and Mr Clippy.

The upgrade for DrawWorks Select is free and can be downloaded from the APDL/iSV web. Note that this will only work with DrawWorks Select and cannot be used with any other version of DrawWorks.

If you don't already have DrawWorks Select then upgrades from earlier versions are available or the full program, complete with lots of other utilities and a colour printed manual now costs just £39. DrawWorks SE, the FREE entry level version of DrawWorks, is now Iyonix compatible and is available for download.

The new version of Mr Clippy is now Iyonix compatible. It is supplied on CD with around 1800 pieces of clip art and a printed manual and costs only £14.90. Full details are available from the APDL/iSV web site. If you already have the CD version of Mr Clippy then the upgrade to the Iyonix compatible version is FREE. Note that the free upgrade can only be used with the CD version of Mr Clippy.

To order call APDL on 020 8778 2659, e-mail **info@apdl.co.uk** or write to APDL, 39 Knighton Park Road, Sydenham, London SE26 5RN. Web: **www.apdl.co.uk**

## Spamstamp upgrade

SpamStamp is a program that attempts to detect if a mail is spam or not. Some headers are added to the mail with the result of that check. Your mail client can then decide what to do with the spam.

Deciding whether mail is spam or not is being done by bayesian filtering techniques (see **www.paulgraham.com/spam.html**). This means that you do not need to set up all kinds of rules, but the system figures it out by itself. It does this because every time it makes a mistake, you tell it that it took a wrong decision. This then increases SpamStamp's ability to detect spam.

- Spamstamp has now reached version 0.15. This new version has several enhancements:
- A proper icon
- It is now possible to see the words SpamStamp has used to base its decision on when you drag a message to the SpamStamp icon.
- Educate window stays on screen if you click outside of it.
- Extra logging.
- Possibility to restrict the number of backup files.

You can find the new version at **http://home.c2i.net/jjvdgeer/riscos/spamstamp.html**

## RISC OS 4 toolbox patch

A patch to allow the correct use of the new ToolBox modules with RISC OS 4.02 is now available for download from the RISC OS Select Private web site for subscribers to the RISC OS Select Scheme and from the **http://support.riscos.com/Support/Updates/** web site for other users.

## New e-mail client for RISC OS

TapirMail, a new shareware POP3 e-mail client for RISC OS, is now available from the TapirMail Web site at: **www.flypig.co.uk/tapirmail**

RISC OS already has a collection of excellent e-mail clients, but TapirMail is designed to complement them rather than replace them.

Its main difference is that it works entirely in memory and doesn't permanently download e-mails. This makes it ideal for people who want to read their e-mails on more than one machine, or who check their mail on the move. It can also be very handy for removing spam and viruses when using a slow connection.

TapirMail has the following features:

- Built in POP3 and SMTP protocol support for receiving and sending e-mails
- Saves no files to disc, ensuring safe use on any machine
- Multiple e-mail account settings
- Allows the encryption of account details using Blowfish
- Indent colouring to improve e-mail readability
- Downloads only those e-mails requested; ideal for slower connections
- Small program size can easily be fitted on a floppy disc
- Ideal for use with a USB pen drive

For more info about the program, please visit the Web site, where you can also download a copy that will do everything the registered version can do except send e-mails. Registration costs just £5 (or £6 online).

## Paintpal graphics tablet

Following a deal with Paradise Software, The Fourth Dimension have taken over distribution of PaintPals. They have limited stocks of the serial port PaintPal, and do not expect to be able to obtain any more. As they are working on a suitable driver for a USB graphics tablet, they are reserving all serial port PaintPals for non-Iyonix RISC OS users.

The PaintPal Deluxe is a pressure sensitive graphics tablet using a cordless, battery-free stylus. The tablet offers 512 levels of pressure sensitivity on a 5" x 4" active area, it is ideal for photo editing in Photodesk or graphics work in Artworks or Cerilica Vantage. The PaintPal Deluxe is available from The Fourth Dimension for £69 including RISC OS software and UK delivery (overseas delivery extra).

Existing PaintPal users wishing to use it on an Iyonix should contact The Fourth Dimension to obtain a 32-bit upgrade. Please note that the PaintPal derives its power from a pass-through PS2 keyboard lead. The Fourth Dimension can supply a suitable power supply to remove the reliance on having a computer with PS2 keyboard powered up.

For ordering details see CJE Micros Web site at **www.cje.co.uk**

## German translation for RISC OS 5

Iyonix PC users can now benefit from a translation of the RISC OS 5 ROM. A German territory for RISC OS 5.03 can be downloaded from the download section of **www.riscos.de**

## One Year Old Iyonix

Castle celebrated the birthday of their Iyonix PC this month with a host of special offers: 10 lucky Iyonix PC customers received a complementary bottle of Champagne and a box of chocolates. This was in addition to the free 19" monitor and free USB memory card reader Castle are offering.

Also, a set of specially commissioned backdrops have been released which are free for anyone to download. Created by Richard Hallas, the designed of the RISC OS 5 icons, the "Iyonix-themed" backdrops can be downloaded from **www.drobe.co.uk/wallpaper/**

The anniversary draw for a complete Iyonix system took place this month and Castle is pleased to announce that Mr Hamilton of Linlithgow is the winner.

Finally Castle has updated its Web site to make it easier to navigate and use with clearer content. This new implementation is compatible with a wider range of browsers, making secure shopping on Castle's Web site more accessible for Castle's customers. See: **www.castle-technology.co.uk**

Commenting on the Iyonix PC's first birthday Jack Lillingston said, "This year has been very exciting for Castle and we hope everyone in the RISC OS world will join our celebrations. The Iyonix PC has beaten all of our expectations; this is not only due to Castle staff who have worked extremely hard on the Iyonix PC project, but also the brilliance of everyone involved with the Iyonix PC conception and design, including the development of 32-bit versions of RISC OS. I would also like to thank all the third party hardware and software companies and individuals who have converted their software to 32 bit. This has all been a remarkably smooth transition and lays sound foundations for the future development of RISC OS."

## RISC OS manuals

IC Software has launched a new Web site containing details of their current RISC OS printed manuals, as well as those which might be produced in the near future.

IC Software's first manual was a 64-page Artworks 2 manual, produced in association with MW Software, the software's developer. It is hoped that future collaborations will result in the production of other paper-based documentation, including a much needed, up-to-date Photodesk manual.

All of IC Software's manuals are produced with high-quality materials and are bound within four-ring, PVC A5 folders so that new sections may be added when they become available.

Ian Chamberlain, co-ordinator of the RISC OS Manuals project, commented that "IC Software is open to suggestions. We realize that since most developers have stopped producing paper-based documentation, many users are crying out for up-to-date printed manuals. We'd like to hear from these users so that we can help them." Ian went on to say that "because of a special agreement with a commercial printer, we are able to produce manuals in relatively small quantities."

The Artworks 2 manual is available for immediate dispatch and is priced at £17.50, which includes postage and packaging within the UK. International customers should see the Web site for more information.

RISC OS Manuals Web site: **www.riscosdocs.com**, **manuals@namesindex.com**

Telephone: +44 (0)1 943 609 897

Facsimile: +44 (0)1 943 600 675

Post: IC Software, 8 Crescent Court, Ilkley. LS29 8DE. United Kingdom

## User group news

The Wakefield Group raised over £235 at its Charity auction this year breaking the current record. They have now raised over £1000 for the Sick Childrens Trust over the past 5 years.

Future meetings include their AGM on 7th January

4th February event is still to be confirmed.

**www.wroc.org.uk**

DARC's January meeting is Adobe Photoshop Album. See **www.darc-comp.org.uk** for details

RISCOS Belgium next meetings are on 9 & 23 January 2004 at 8pm. More info at **www.riscos.be**

## More Virtual Laptops

R-Comp Interactive have joined STD and Riscstation in offering a portable RISC OS solution based upon a PC laptop running Virtual RiscPC .

The "RISCBook" is however the first solution to use the latest Intel "Centrino" technology with the RISC OS operating system.

The Centrino platform incorporates technologies such as wireless networking for a truly mobile computing solution along with better performance to


MPRESSION




Micro Bits
Acorn Centre of Technology





power consumption ratios.

The CPU at the heart of the Centrino platform is able to offer high performance even at relatively low MHz ratings. For example, the current RISCBook uses a 1.4Ghz processor, yet equals (and even outperforms) the desktop 2600+ systems the suppliers claim. The classic Artworks apple renders in 2 seconds at 1024x768 in 32,000 colours, using AWViewer which is among the fastest times recorded for a RISC OS 4 machine.

The system is claimed to offer up to 5-6 hours battery life in Windows, or around 2.5 hours running RISC OS 4, in order to support the emulator the processor has to be run flat-out explaining the reduced time.

Centrino laptops command a price point towards the higher end of the market, yet RComp are able to offer the RISCBook with both RISC OS and WindowsXP Professional for £1250 inclusive of VAT and UK delivery.

Commenting on the release of the RISCBook, R-Comp Interactive's Andrew Rawnsley said: "Given that a number of companies are now offering laptops with RISC OS, we wanted to bring something special to the table, and the Centrino platform seems ideally suited to the needs of a RISC OS laptop. I am particularly pleased by the value for money offered by the RISCBook given its superb performance and battery life."

Features of the RISCBook:

- Intel Centrino mobile platform with a 1.4Ghz CPU which runs RISC OS substantially faster than a StrongArm Risc PC (most benchmarks are 2x or more!)
- RISC OS 4 and WindowsXP Professional
- 256Mb of RAM
- 40Gb hard drive
- 5-6 hours battery life (around 2.5 when running RISC OS)
- Wireless networking
- "Wired" networking
- 56k modem
- DVD drive and CD-rewrite combi drive
- 3x USB 2 ports, 1x firewire
- MemoryStick, MMC and SD camera disc reader
- 2x PCMCIA slots for further expansion
- VGA and TV outputs
- 2.4kg weight (with battery installed) which is comparatively light
- Padded laptop case
- Antivirus/firewall software, DVD software, video editing software, MP3 software and CD writing included
- UniPrintVA is also included free of charge as a special offer

Customers should note that because the RISCBook is a truly mobile computer, legacy ports such as parallel and floppy are not present. This ensures low weight, and is made up for by other inbuilt technologies. There are ways to circumnavigate these if the user desperately needs specific ports (please contact RComp for more details).

The RISCBook costs £1250 inclusive of VAT and UK delivery. Peripherals and memory upgrades are also available. For more information contact RComp on (+44) (0)1925 755043 or e-mail **rci@rcomp.co.uk**

## Moore's Law hits the wall

Scientists expect the end of Moore's Law. Moore's Law is named after Gordon Moore, a founder of Intel, who predicted that innovation would enable the number of transistors on a chip to double every 18-24 months. Intel scientists see the end of Moore's Law occurring about 2021.

Moore's Law is built around shrinking the size of transistors and Intel scientists don't see a way to shrink the size of transistors beyond 16 nanometers, containing 5-nanometer gates. Currently, chips are made in a 90-nanometer process. A nanometer is a billionth of a meter.

Transistors are essentially microscopic on/off switches that consist of a source (where electrons come from), a drain (where they go) and a gate that controls the flow of electrons through a channel that connects the source and the drain. When current flows from the source to the drain, a computer reads this as a "1." When current is not flowing, the transistor is read as a "0." Millions of these actions together produce the data inside processors.

There are two big issues that are stumping scientists: When transistor gates get below 5 nanometres, electrons start tunnelling through the silicon. This means that electrons are able to pass through transistor gates on their own. This makes transistors unreliable, because no one's certain if they are truly on or off. The other issue is heat build-up, as electrons leak on their way to the transistors. Packing transistors more closely makes the heat problem worse.

Even though silicon may be near its theoretical physical limits, it's likely that scientists will pull another rabbit out of their collective hats. Perhaps it will be stacking transistors in high-rise chips, or packaging, or carbon nanotubes, or replacing electrons with photons. Perhaps it will be a jump to chips built around DNA processes used to create all life. Creativity is built around constraints, it's what's gotten us this far, and it's unlikely to stop.

## Pass the time with SPatience

!Spatience v1.27 is now available from the author's Web site: **http://donsback.chez.tiscali.fr/**

The main changes in this version are:

- Better manual for the script language to code new patience games
- Many options can now be set using a Choices file (see !Help file)
- Display colours can now be configured by the user
- Changes in default options (mainly flying cards)

Along with this new version of !Spatience, is also a new version of the patience library (v1.25) with more supported games, and a new optional cards file (v1.00) that contain new cards to play with.

## PDF upgrade

A new version of !PDF, the Adobe PDF file viewer for RISC OS is now available from **www.pdf.iconbar.com**

The main changes are:

- Upgraded to xpdf 2.03
- Some improvement in display of Truetype and Truetype based type1c fonts
- Print dialog box now uses logical page number system
- Use paper margins added to 'Print

setup'

- Scale to fit option added to 'Print setup'

## Database connectivity tools updated

Richard Windley has updated his ODBC libraries and applications on his Web site at **www.really.demon.co.uk**

Changes for this set of releases include:

- New version of SQL query application with fixes
- New version of ODBC driver manager with fixes and better multitasking
- New version of PostgreSQL driver (7.3.2)
- New port of FreeTDS ODBC driver to give SQL Server and Sybase (untested) access
- Port of MyODBC driver for MySQL

ODBC is an industry standard API for connecting to local and remote databases without the client application needing to be aware of the type of database it is connecting to.

This allows you to develop against one database and (in theory) move to another as your requirements change.

## New home accounts software

Money2, a re-write of "Money" has been released. Written in BASIC, it should run successfully on all OS versions from 3.1 upwards, including (but not tested on) OS 5.

Money2 keeps a record of up to ten individual accounts which may include normal bank accounts, credit card accounts, and savings accounts. It provides a facility to budget under as many as twenty different headings, and keeps track of bankers' orders at monthly, quarterly, half-yearly or annual intervals.

Although there are several home accounts programs, each has its own characteristics. This program is very much button-driven rather than menu driven, and is hopefully more intuitive as a result while retaining some powerful features.

In short, it provides a one-stop program for managing household accounts, keeping track of income, savings and expenditure in one coherent package.

Money2 is freeware, and can be downloaded from **www.argonet.co.uk/users/cwragg/**

## More new utilities

Cyclist-cum-programmer Harriet Bazley has updated several of her freeware utilities.

TEXTSEEK: searches for text within files of multiple (or any) type Textseek (v1.41) has received minor upgrades aimed at reducing the number of fatal errors generated:

the Wimpslot has been increased to cope with memory problems when searching deeply-nested directories with long filenames

the 'save search history' code is more robust in attempting to avoid reporting errors during non-critical disc accesses (using Textseek on a locked hard disc is no longer intensely annoying)

the error carefully generated to warn of a corrupt BASIC file no longer invokes the machine-code error handler, performs a register dump and quits the program!

FIRETOIMP: converts Fireworkz documents into Impression DDF; FireToImp (v1.31) has received a few bugfixes:

the presence of (any) vertical justification in a style definition is no longer translated into a forced-left horizontal justification(!)

blank rows in the input file now actually appear in the output rather than being silently suppressed,

the region analysis now understands the 'wholerow' area selection syntax meaning that styles applied to such regions will get applied to the relevant paragraphs in the output.

SIDEDIFF: displays and edits the differences between two files; SideDiff (v2.11) has received a couple of upgrades:

when comparing BASIC files, the 'Refresh' option now re-compares the original files rather than the detokenised versions in !Scrap

the 'Auto' option for calculating the width of the line number column now takes into account the current desktop font width if outline fonts are in use

All three can be downloaded from **www.bigfoot.com/~chrisbazley/utilities.htm**

## Gifts for geeks

### Use a window as a speaker

Smaller than a computer mouse, Soundbug plugs into the standard 3.5mm headphone socket of any audio device. A sucker push ring attaches Soundbug firmly to any hard, glossy surface. A single Soundbug can generate sound levels of up to 75 decibels peak, loud enough for a group of people to enjoy music together, or listen to the sound output from a laptop presentation or a camcorder video. Two Soundbugs can be linked in parallel to generate full stereo.

### Robotic vacuum cleaner

Samsung's robotic vacuum cleaner creates a 3D map of the room it's cleaning. It can be controlled from a PC over a wireless connection and programmed to clean only at specific times. The VC-RP30W also has a built-in digital camera so you can see what it sees while it's cleaning. A built-in negative ion air filter allows robo vac to purify the air as it moves about your house.

### e-Blue ink disappears

Toshiba's "e-blue" erasable ink can be used in ordinary laser jet printers and pens. It consists of three different chemical components. Two of these naturally combine to give the ink its colour. The third element reverses this process when heat is applied, causing the ink to become transparent. The paper can then be printed on again. It takes roughly two hours to erase 200 pages of paper. Paper accounts for 40% of all office waste in Japan and just 60% of this is recycled. Toner and an erasing machine will sell for $2,800.

# Signs of the Times

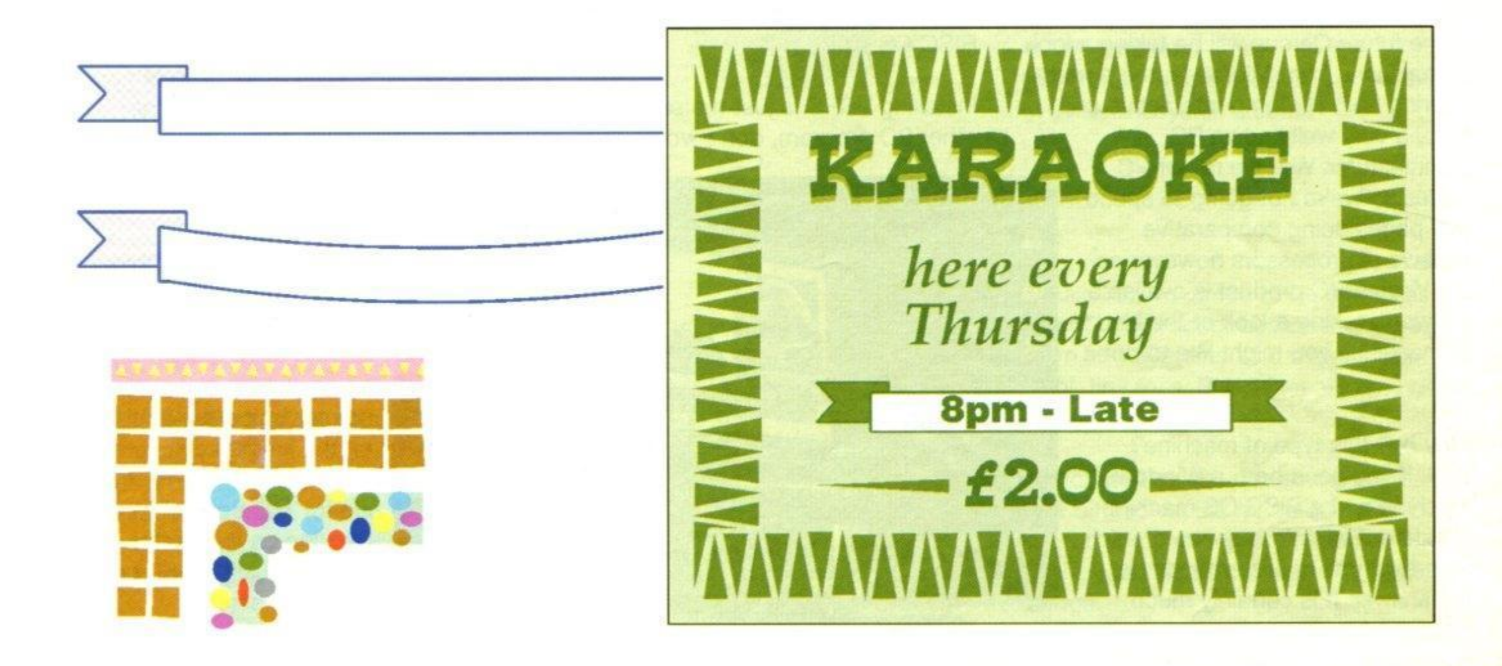
We're addicted to reading. Given a situation where we have to stand doing nothing and we continually feed this addiction by reading anything our eyes can feast on. Standing at a bus stop or in a lift, we studiously scan the timetable or floor numbers.

On a train looking out the window we anxiously search for shopfronts and posters so we can relieve the terrible occurrence of having nothing to read. When we're really desperate we start reading other people's t-shirts, clothing labels or trainers. We can't help it: our brains constantly need something to work on, and reading fulfils that requirement.

Signs are responsible for much of this eye-grazing; we see signs all day, every day. The dictionary defines a sign as "a printed mark with a meaning" and this can include one-off notices produced on your computer. Let's take a couple of signs and explore what might enhance them. What will the sign say?

A border can add interest to a sign. There are plenty of clip-art borders available, or you can easily make one up yourself. For example, in Draw, create a triangle shape. Copy it and rotate the copy 180 degrees. Place them next to each other and keep copying. Group and rotate 90 degrees to go round corners, and you could draw a little shape to fill in any gaps in the pattern. From this simple concept you can create your own interesting borders. Experiment with other shapes: squares, circles, and so on.

Banners can be used to emphasise particular words or phrases, and again you can find such banners in clip art collections, or create your own. In your drawing program, make sure the grid is turned on. Draw a simple rectangle first, then the dovetail shape. Copy the dovetail shape and rotate it 180 degrees; send both behind the original rectangle and adjust to suit. You could give the dovetails a shade of gray to make them look like they're behind (fill the rectangle with white). Another variation would be to use curved lines, although it's more difficult to fit text within a curved shape.




Pick one of the words to stand out. If you want people who are interested in karaoke, ensure that they see the word "karaoke" before anything else. Make that word bold. Giving it a drop shadow effect could add the extra needed. As always, experiment.

## Design: Why Bother?

If my philosophy about design could be encapsulated in a simple phrase, it might be "First impressions last." Right or wrong, the way one thinks about a business, for example, can be determined very quickly, and the role of graphic design is to encourage a positive reaction.

Of course, if you are subsequently disappointed you'll soon change your mind, but often the reasons you choose one company over another is that you believe one of them can do the job better than the other. You can trust one over the other; and you'll tend to trust the company who look as if they can do the job. If you don't know anything about them, it will come down to which looks more professional, and that's the job of the graphic designer.

A pessimistic view may be that this is deception, that you're making out that a business is better than it is. In fact you often get very good companies who are let down by their image, so I prefer to view a designer's role as matching the firm's skills and professionalism with suitable professional-looking stationery.

## Fond farewell

Well that's it from me, the end of my series in Acorn User although you might see me in the new magazine Qercus, especially alternating in the graphical one.

What an interesting thought ... an alternating me, I think I could make a graphical design out of that.

Nigel Gatherer
nigel@gatherer.net

# A virtual tour

A lot has been said recently about the Virtual Risc PC from 3QD (what's with the "QD"s in RISC OS? First there's 4QD a RISC OS-based company producing electronic speed controllers, now 3QD). So we thought we'd bite the bullet and make like a PC magazine.

So what we've done is have a look at the VirtualRPC kit (with a sidelong glance at TechWriter), plus reviews of a couple of PCs sold by Acorn company's namely R-Comp Interactive and A6 (formerly known as Stuart Tyrrell Developments), and while we're at it pause over a nifty little ruggedised laptop PC from Terralogic.

In the future Qercus will be taking a look at machines from Microbits, the portable offering from R-Comp Interactive and CCL, a very well known PC manufacturer. Well we're not PC dudes so we're not going to spend 300 pages doing comparative reviews of processors however as the VirtualRPC product is available it's worth taking a look at the kind of machines you might like to run it on.

Why buy this type of machine? Well, if you need both a Windows machine and a RISC OS machine but do not wish to buy one of each then this type of system may be the answer. It is certainly much cheaper than buying two separate machines.

So without further ado let's dive straight into the VirtualRPC:

## VirtualRPC-SE

I may say this more than once but the trouble with the Virtual Risc PC product is that it is just a machine running RISC OS 4. That's it. Yes, of course, there are some differences but it is basically just that.

So the only thing we can really do is look at the differences. The first point to bear in mind is that owning this product is not a licence to rip off other people's software. You still have to have appropriate licences for everything that you would use on a given machine. And if you have a licence for Techwriter on one computer that doesn't give you the right to use it on VRPC, you do need another licence. Sorry.

Technically VirtualRPC-SE is a software reconstruction of an Acorn Risc PC computer. It allows a Windows PC with an Intel (or equivalent) processor to run RISC OS (which was designed for ARM processors). This means that users can run RISC OS programs on a PC. VirtualRPC-SE can run in a window, like other programs, or can run in "full screen" mode. When running in "full screen" mode the Windows PC looks and feels just like an Acorn computer. VirtualRPC-SE faithfully re-creates the hardware of an Acorn computer in software, and runs a genuine version of RISC OS 4.02.

Installing VRPC is just the same as any other PC program, don't worry if you're not familiar with the procedure, Windows is designed to be used by people who don't know how to use computers so it's easy to pick up. (That doesn't mean that what it does is logical in a RISC OS sense, but it isn't hard.)

VirtualRPC-SE is supplied completely set up and ready to run. When it does run it looks exactly like RISC OS booting up into its Wimp environment, because it is exactly the same as RISC OS booting up into its Wimp environment.

Because you are running two operating systems you have two mouse pointers. I actually found this to be really irritating, I wanted to have the option to disconnect the mouse completely from the RISC OS environment when I was in XP, just like it used to be when I was running Windows on a RISC OS machine. The only way to stop the RISC OS pointer sliding around the RISC OS window, seemingly trying to crawl out of it was to minimise the window.

As you can see from the screenshots the VirtualRPC-SE window consists of a number of parts. There's the RISC OS window. At the bottom of the window is a status bar and at the top of the window is a set of menu options, and a toolbar.

VirtualRPC-SE has a small toolbar along the top of the window showing:

Insert floppy image: VirtualRPC-SE can read floppy disc image files generated by the freeware ArcImg DOS utility, or the ArcDisc Windows program. Floppy disc image files are exact copies of floppy discs but stored as a file on the computers hard disc. These files are often referred to as ADF (Acorn Disc Format) files.

Close Windows pointer: Clicking this button makes the Windows pointer vanish, just leaving the RISC OS pointer. You can restore the Windows pointer by pressing Alt+Enter on the keyboard.

Go to "Full Screen" mode: Clicking on this button will make VirtualRPC-SE take over the entire screen.

Restore window to actual size: It is possible to resize the VirtualRPC-SE window by dragging on its bottom right corner. Having done this it can be very difficult to get the window back to the correct size. Clicking on this button will restore the VirtualRPC-SE window to the same size as the RISC OS desktop.

Sound enable/disable: This button will toggle the VirtualRPC-SE sound on or off.

The are a huge variety of menu entries and configuration options, far more than we can cover here so I'm not even going to try. However there is a little FAQ which we have taken the liberty of reproducing here because it does answer some important and interesting questions:

*Do I need to partition my Windows hard disc to run VirtualAcorn?*

No, you do not have to partition your drive. VirtualAcorn uses a directory to store programs. RISC OS sees this as a hard disc, but to Windows it is just a directory.

*Will VirtualAcorn run all my RISC OS software?*

VirtualAcorn runs a real version of RISC OS, not a clone. If a program runs on a real Acorn computer with the same version of RISC OS as VirtualAcorn, then the program will run on VirtualAcorn. The only exception to this is software that requires specific third party hardware, or a special "key" floppy disc. For example the software to drive a video digitiser Podule (like a PCI card) will not work as the physical podule will not be present.

*Does VirtualAcorn come with BBC Basic?*

Yes.

*How fast does VirtualRPC-SE run?*

This depends on the speed of your PC. The original Risc PC delivered around 18 MIPs (million instructions per second). A 500Mhz desktop PC will quite often run RISC OS faster than a real Acorn RPC. The graphics card fitted to your PC makes some difference to the speed that VirtualRPC-SE runs at. Machines fitted with a Riva TNT2 or better will run VirtualRPC-SE faster then those with integrated graphics cards. Some high spec PCs can run RISC OS software well over sixty (60) times the speed of an Acorn A3000.

*How do I get my programs into VirtualAcorn?*

Every version of VirtualAcorn comes with !ArcFS, !Squash and !Sparkplug, these can can read compressed RISC OS archives (very similar to zip files). You can compress files on a real Acorn computer and transfer them to the PC.

VirtualAcorn can then read these files from the PCs hard drive and de-compress them. On Windows 2000 and XP you can simply insert your Acorn format floppy discs provided you have an internal floppy drive.

*I have an Acorn formatted IDE hard disc, can I connect it to the PC and use VirtualAcorn to read the files?*

No.

*Can VirtualAcorn read Acorn format floppies?*

Both VirtualA5000 and VirtualRPC-SE can read Acorn and DOS format floppies directly on Windows 2000 and XP. On Windows 98/ME you will need to use the ArcDisc program to read an Acorn format disc as an image.

*Can VirtualAcorn read CD-ROMs?*

Both VirtualA5000 and VirtualRPC-SE can read Acorn format CD ROMS on Windows 2000 and XP.

*Can VirtualAcorn use a Windows printer?*

VirtualAcorn prints out using a RISC OS printer driver. Provided a suitable PDF (Printer Definition File) exists then RISC OS can print to your printer. VirtualAcorn is supplied with a wide range of the latest printer drivers available for RISC OS.

*I have lots of Acorn software, is it okay to use this on VirtualAcorn?*

If the software is PD or freeware then of course you can run it on VirtualAcorn without worrying about any breach of licence. If however you have commercial software then you should check the licence you have. For example the licence may only allow the software to be installed on one machine. If so you would need to purchase further copies of the product in question in order to be able to run it on a real Acorn machine, and on VirtualAcorn as well.

*Can VirtualRPC-SE run a later version of RISC OS?*

VirtualRPC-SE runs RISC OS 4.02 as supplied and can also run RISC OS Select.

## Techwriter

If you have RISC OS 4 you will have Writer from Icon Technology. If you have that then you really need to upgrade to at least Easiwriter, if not Techwriter because the additional options are great.

As a little sideline we thought we'd just remind you of the advantages.

In addition to the features found in TalkWrite, EasiWriter professional introduces the unique concept of structures. Chapters, Sections, Lists, Tables, Figures and Footnotes can all be created with a single click.

Everything appears on the screen the way it will be printed. You can use any font in any size and colour. You can zoom in to work on areas where the text is small and zoom out to preview the document several pages at a time.

Documents can have up to nine columns and can be zoomed in and out from 10% to 999% of full size.

Originally developed for the Network computer, EasiWriter Professional can read and write documents in MS Word 6, 7 and 8 (Office 97/98) format. This includes fast saved documents.

To create a new chapter or section in EasiWriter you simply click on the Chapter or Section button in the Button bar. EasiWriter treats the first paragraph you type as the heading and subsequent paragraphs as the body and all the formatting is automatic.

Creating lists in EasiWriter is as easy as clicking the List button. EasiWriter does the rest, adjusting the ruler's margin markers and typing the optional (and user definable) bullet character.

EasiWriter has a unique table editor that automatically adjusts the width of columns as you type, no need to move

tab stops. Or you can have user-defined fixed width tables with automatic word wrap.

You can insert or delete rows and columns, add borders & rules and allow items to span more than one column. If you edit the contents of a cell EasiWriter automatically adjusts the format as you type.

CSV (comma separated value) files created by other applications, such as a spreadsheet, are automatically turned into tables when inserted into an EasiWriter document.

EasiWriter's hyphenation routines not only hyphenate in English but most of the other European languages as well. EasiWriter comes with a British English dictionary of over 80,000 words and can check the whole document, selected text, or as you type.

With optional dictionaries, EasiWriter can check the spelling of a document in most of the European languages. It will even spell check a document in several languages at the same time.

EasiWriter has a powerful, yet very easy to use, merge facility which can be used to merge data files with documents to produce form letters. CSV files, Tab separated text files and even EasiWriter tables can all be used as the datafile.

And there's so much more: You can read about it by going to the Web site **www.iconsupport.demon.co.uk**

## A6

The first thing I noticed about the unit supplied with the A6 was the boxes. Not because it came in boxes but this: Once upon a time a computer was a big desktop machine which came in a big box; this then had a big CRT monitor which was very heavy and also came in a very big box. Two big boxes.

The A6 was delivered with the monitor box being carried by a handle in one hand and the computer box being carried by the handle in the other. The keyboard box was tucked under one arm.

We got the 80Gb HD version of the machine with its gloss black finish shoe box (they call it a shoe box, damn big shoes I say, more "boot box size" I would say). Plugging it all together was a doddle but switching it on wasn't.

There is the story of a man who got stopped at airport security because he couldn't switch on his new Macintosh laptop (you had to press the spacebar). In my case I couldn't see an off/on switch. I eventually realised that the central panel could be pressed on the right side, and on it came. The reset button is the left of the panel.

These machines are supplied with vanilla VRPC-SE install but can be upgraded to include UniPrint, for example).

It is supplied with Windows XP Home and can be set up to boot into RISC OS by default.

The trouble I have reviewing this type of product is that VRPC is exactly the same as running RISC OS so what can you say? It's just like you've got a very fast version of RISC OS ... which you have.

So what extras have you got? All machines can hibernate from RISC OS, just press the power button on the front (right hand side of the rocker). You get a pack containing a User guide and "Extras" programs

The Extras show that Advantage Six aim to develop specific software for this machine. The examples are:

!Dial/!HangUp which dial and hang up to/from a default connection. This will be supplied as a full dialler program.

!PlayDVD which flips to XP and plays a DVD. It currently requires a DVD to be present when VRPC-SE is first started.

Advantage Six also intend to ship programs which allow for an automatic shutdown of the machine so you don't need to go to XP to shutdown, although you can initiate the hibernate facility anyway.

Connectivity on this PC includes, on the front: 2 x USB, 2 x Firewire, head phones and microphone sockets, DVD/CD drive and floppy drive. On the back it has: 2 x USB, network, 2x serial, modem, keyboard and mouse sockets.

As a quick aside, I had to laugh: There's an old tagline on e-mails which runs: "No keyboard detected, press F1 continue". I always thought this was just a joke. Until I switched on the A6 without the keyboard plugged in. Guess what message appeared. Microsoft, don't you just love 'em.

Although we didn't get a chance to try this, as we were going to press it was announced that all A6 machines now ship with VVRAM (Virtual VRAM?) which allows enhanced screenmodes to be used within RISC OS, such as 1600x1200x16 million colours.

The A6 is available in three variants, all machines come complete with DVD drive or DVD/CDRW, fast hard drive, Floppy disk, Barton-core AMD Athlon 2500+ processor, 333/400MHz dual-channel DDR memory, UDMA 133 drives, Geforce 4MX graphics, 56K internal modem, 10/100BaseT networking, 4xUSB ports, 2xIEEE1394 ports (windows only), SPDif optical (input windows only, output RISC OS/windows), Windows XP Home and VirtualRPC-SE. Keyboard and mouse are of course included, along with speakers for those machines where they are not part of the monitor.

The machine variants are:

A6B: Base unit/DVD/40G hard drive/256MB memory : £599 ex VAT

A6: 15in TFT monitor/DVD/CDRW/80G hard drive/512MB memory: £899 ex VAT

A6DB: 17in TFT monitor/DVD/CDRW/120G hard drive/512MB memory: £999 ex VAT

Carriage: £25+VAT

Stuart Tyrrell Developments, PO Box 183, OLDHAM, Lancs OL2 8FB; Tel: 0845 458 8803 / 01706 848 600; Fax: 0870 164 1604; Email: **info@stdevel.co.uk**; Web: **www.stdevel.co.uk**

## RISCube

The RISCube from R-Comp is a Windows machine which has had VirtualRPC-SE added and configured so that both Windows and RISC OS work just as they would in dedicated boxes. The version of Windows supplied is WindowsXP Home Edition although WindowsXP Professional is available as an option. The RISC OS version is 4.02 but it is possible to upgrade it using Select.

The actual box is very small, measuring about 8" wide, 8" tall and 12" deep (20x20x30 cm) and weighing about 11.5 lbs (5.2Kg). The Windows side is just like any other modern Windows machine with fast processor, large memory capacity, large and fast discs, fast DVD and CD readers and writers, a sophisticated sound system, an advanced graphics system and a wide range of connectivity - USB, firewire, digital audio out and fast networking.

The addition of VirtualRPC-SE provides a RISC OS system with access to most of these facilities. As this is all through emulation how much does this detract from its performance? Before we look at the performance figures we will look at what distinguishes the RISCube from the other similar systems.

There are a number of machines similar to the RISCube now on the market so what is different about the RISCube? Perhaps the most important one is that it includes R-Comp's !UniPrint application, already tailored for your particular printer(s).

As the author of this application they are in the best position to get the best out of it. It enables RISC OS to have access to any printer for which there is a Windows driver, which is virtually all modern printers. As these drivers are written with the full knowledge of the printer hardware they will produce the best possible results. !UniPrint enables RISC OS to make full use of these drivers.

The other main advantage of buying a RISCube is that it will be hand-built to your specification and all the software installed and tested before shipping by R-Comp. They will then provide the first line of support on both Windows and RISC OS, as well as all other aspects of the system. Although none of this may be unique to R-Comp and the RISCube, they have a good reputation in the marketplace.

I ran a series of tests to compare a 202MHz StrongARM Risc PC running RISC OS 4.33 with the RISCube. In pure CPU terms the RISCube performs (approximately) as a 287MHz Risc PC would but with all the peripherals, the memory, the graphics display and the data bus being so much faster than in the Risc PC most user activities are performed much more quickly than this would imply. A factor of 3 or more is quite typical and for activities which are mainly accessing the hard disc or screen memory much higher figures are obtained.

Copying a file from one directory to another on the same disc seems impossibly fast. I suspect this is partly because the disc is very fast but also that there is very efficient buffering. The disc in the StrongARM Risc PC was a 1GB drive with the maximum ADFS buffer size, i.e. 255KB.

The two standard systems are:

Standard spec machine (£699 inc.):

Athlon 2000, 256MB DDR RAM, very quiet 40GB hard disc, fast DVD drive with CD/RW re-write, floppy drive, onboard 16/32MB graphics, on-board 5.1 surround sound, on board 10/100 Networking, 4 x USB2 ports, 3 firewire, digital audio out, parallel printer port, RISC OS 4.02, WindowsXP Home, OpenOffice, UniPrint, VirtualRPC

High spec machine (£899 inc.);

Athlon 2600, 512MB RAM, fast 80GB hard disc, fast DVD drive with CD/RW re-write, floppy drive, on-board Geforce4MX 32/64/128MB graphics, on-board 5.1 surround sound, onboard 10/100 Networking, 4 x USB2 ports, 3 firewire, digital audio out, RISC OS 4.02, WindowsXP Home, OpenOffice, UniPrint VirtualRPC

To order either contact R-Comp at

22 Robert Moffat, High Legh, Knutsford, Cheshire WA16 6PS; Tel: (+44) 01925 755043; Fax: (+44) 01925 757377; or order on line at **www.rcomp.co.uk/rci/spacebar.** As well as the two standard systems this site will enable you to specify and order your own configuration; click on a button to determine the price.

## Toughnote 3

We just love these machines. They don't sport the fastest processors but they are tough as old boots, in the speak they are "ruggedised" PCs: water resistant, drop resistant, temperature resistant.

You can take them up mountains, into jungles or deserts or the Antarctic and they just keep on going. Plus they are designed to plug into base stations either in an office or in a vehicle. The base station usually just duplicates the sockets although the office-based one also has an extra PCI slot.

So who uses them? Police, Military, Emergency Services and Government Agencies.

And now you can turn one of these ruggedised PCs into a ruggedised RISC OS portable just by adding the VirtualRPC-SE.

These machines are aimed at outdoor or harsh environments and comply with industrial and military environmental standards such as IEC-68-2, MIL-STD-810E, IP54 and IP65. The displays are active TFT colour LCD with up to 1280 x 1024 x16M that can be displayed on LCD and CRT. Intelligent Power Management helps prolong battery operating time. All models feature rugged magnesium alloy cases, a truly sunlight readable display, shock resistant hard disks and full sealing against dust and water / humidity.

We haven't bothered with speed tests on this machine because they have generally slower processors but they do have the benefit of fast HD access so will feel quite quick. Likewise the graphics card is not super-duper quality but these PCs are not designed for playing games, they're designed for reliability under testing conditions.

So did we test it under testing conditions? Well, no. The agreement we had with Terralogic rather put the dampeners on that idea. They don't like people breaking them by making the conditions a bit too testing.

Specifications Improved PIII 850, 900 or 1GHz processors and 8MB ATI graphics; 12.1in SVGA transflective screen option for daylight readability; 128MB RAM now standard - maximum 512MB; USB port; Enhanced docking solution superb; DVD and CD-RW options; The main components are cased in a cast aluminium chassis that is 20x stronger than the polycarbonate used in most other laptops.

For the Toughnote 3: Call Terralogic +44(0)8707 415533; Fax: +44(0)8707 415534; email: **sales@terralogic.co.uk**; Web: **www.terralogic.co.uk**

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| S020187 | black | £8.25 | £1.38 |
| S020189 | black | £8.25 | £1.38 |
| S020191 | colour | £13.25 | £2.21 |
| T013 | black | £8.25 | £1.38 |
| T014 | colour | £13.25 | £2.21 |
| T019 | black | £8.25 | £1.38 |
| T020 | colour | £13.25 | £2.21 |
| T026 | black | £17.45 | £2.91 |
| T027 | photo | £22.45 | £3.75 |
| T028 | black | £17.45 | £2.91 |
| T029 | colour | £22.45 | £3.75 |
| T036 | black | £17.45 | £2.91 |
| T037 | colour | £22.45 | £3.75 |
| T040 | black | £17.45 | £2.91 |
| T041 | colour | £22.45 | £3.75 |
| T0321 | black | £24.75 | £4.13 |
| T0322 | cyan | £24.75 | £4.13 |
| T0323 | mag. | £24.75 | £4.13 |
| T0324 | yellow | £24.75 | £4.13 |
| T0422 | cyan | £24.75 | £4.13 |
| T0423 | mag. | £24.75 | £4.13 |
| T0424 | yellow | £24.75 | £4.13 |

| Canon Examples: | | 6 Pack | Each |
|---|---|---|---|
| BC121Bk | black | £8.50 | £1.42 |
| BC121C | colour | £10.00 | £1.67 |
| BC124Bk | black | £12.00 | £2.00 |
| BC124C | colour | £17.00 | £2.84 |
| BC13Bk | black | £13.25 | £2.30 |
| BC13C | cyan | £13.25 | £2.30 |
| BC13M | mag. | £13.25 | £2.30 |
| BC13Y | yellow | £13.25 | £2.30 |

## Recycled Cartridges

| HP Examples: | | Each |
|---|---|---|
| 51625 | colour | £11.75 |
| 51626 | black | £9.00 |
| 51629 | black | £9.25 |
| 51633 | black | £9.25 |
| 51641** | colour | £12.95 |
| 51645 | black | £8.75 |
| 51649 | colour | £13.75 |
| C1816 | photo | £15.94 |
| C1823** | colour | £13.92 |
| C4844 | black | £14.95 |
| C6578** | colour | £15.92 |
| C6614** | black | £9.49 |
| C6615** | black | £10.50 |
| C6625** | colour | £14.92 |
| C6656 | black | £17.63 |
| C6657 | colour | £18.80 |
| C6658 | photo | £19.98 |

| Lexmark Examples: | | Each |
|---|---|---|
| 10N0016 | black | £17.63 |
| 10N0026 | colour | £18.80 |
| 12A1970 | black | £12.75 |
| 12A1975 | black | £14.50 |
| 12A1980 | colour | £14.25 |
| 12A1985 | colour | £15.25 |
| 12A1990 | photo | £16.50 |
| 13619HC | colour | £14.25 |
| 13400HC | black | £12.75 |
| 15M0120 | colour | £15.25 |
| 15M0125 | colour | £16.70 |
| 17G0050 | black | £12.75 |
| 17G0060 | colour | £14.25 |

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**Computer Active, Issue 121**

## Shopping Cart

Shopping Cart Ready...

## Most Popular

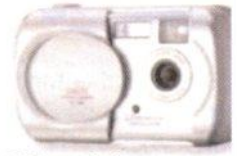
01. Remanufactured C6578A (No. 78) Colour (45ml)

02. Remanufactured C6615D (No. 15) Black (42ml)

03. Remanufactured 51645A (No. 45) Black (42ml)

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# Buying online

With Christmas on its way a lot of us will be buying online, it's easy you don't have to wander around the shops and for certain types of gift it is an ideal solution.

On reason why you might decide not to buy online are the risks associated with putting your credit card details online. To be honest, when it comes to credit card fraud it is usually the seller that suffers the worst however with a total of £435 million of credit card fraud in the UK and £1 million of that currently online we thought it would be a timely to look at the potential problems and solutions.

I suppose the first point to bear in mind is that if you are ordering from well-known Internet organisations like Amazon or Play the chances of there being any sort of a problem are minimal. The key is that the criminal has to get hold of your card information, that is the source of credit card fraud.

So how do they do it? One method is to pretend to be a company that provides some online service and gather credit card details that way. Which is why it is safest to use well-known e-tailers. But then how can anyone become a well-known e-tailer? Well you can try talking to the company first, do they have a phone number?

It is also feasible to have credit card details hijacked as they pass through the 'Net, but only if they have been unencrypted. Never send your credit card details via any Web page that does not have a "https://" start, and/or the padlock appears somewhere on your browser page.

Organised criminals are largely to blame for the surge in plastic card fraud, particularly a counterfeiting method called "skimming". Criminals often use sophisticated methods of card crime as a comparatively low-risk way of raising revenue to fund more violent crime. The increase in card fraud is from Counterfeit (for example fake cards) and Card Not Present Fraud (which is to say telephone and Internet transactions).

Card fraud is increasing in real terms as card usage, and the number of cards issued in the UK continues to rise. But having said that over the last 10 years the proportion of credit card crime has decreased by 50%, in other words although the total amount is higher, relative to the total amount of transactions it is down. Which is good news.

The new Chip and Pin smartchip technology due to be introduced by 2005 will put a stop to the fake cards fraud but won't stop "Card Not Present" fraud.

One of the worst cases of this type fraud was a company in the US which was actually given three million valid credit card numbers by a US bank in order to "allow them to check the validity of callers".

What they then did was have dozens of workers who simply used the credit card numbers to credit the company's account with small but realistic amounts, like $9.99 or $19.99. Because the credit card owners were spread all over the world and most of them didn't check their card statements beyond a brief scan to see what they had to pay this month the company got away with this for a very long time. However very slowly people here and there did complain and eventually they were tracked down and stopped.

Despite all these problems the number of people buying online is increasing dramatically and it is now being argued that it is probably safer buying online, because the information is encrypted, than it is using the phone (which can be tapped) or over the counter, where the card can be skimmed.

Card Watch, the UK banking group that works with the police and retailers to stop credit card fraud have a number of top tips when buying online:

Before purchasing from a Web site, make a record of the retailer's contact details, including a street address and landline phone number. If these details are not available on the Web site, consider going elsewhere to buy, do not rely on the e-mail address alone.

If you have any queries or concerns, telephone the company before giving them your card details to reassure yourself that it is legitimate.

Print out your order and consider keeping copies of the retailer's terms and conditions and returns policy. Be aware that there may well be additional charges such as postage and VAT. When buying from overseas always err on the side of caution and remember that it may be difficult to seek redress if problems arise.

Check statements from your bank or card issuer carefully as soon as you receive them. Raise any discrepancies with the retailer concerned in the first instance. If you find any transaction on your statement that you are certain you did not make, contact your card issuer immediately.

Ensure that you are fully aware of any payment commitments you are entering into, including whether you are instructing a single payment or a series of payments.

Never disclose your card's PIN number to anyone, including people claiming to be from your bank or the police, and never write it down or send it over the Internet.

If you have any doubts about using your card, find another method of payment.

So, let's just take a quick look at what to do if your card is stolen or used illegally. First of all you should understand that you are fully protected by the UK Banking Code. The Code is a voluntary system that sets out standards for good banking practice, including limiting liability for cardholders that are victims of fraud. Under the Code, if someone else uses your card before you tell your card issuer it has been lost or stolen or that someone else knows your PIN, the most you will have to pay, in theory, is £50.

In practice the bank or building society will usually refund the full amount lost. But if you are considered to be negligent, for example, by keeping your PIN near your card, you would have to meet all the losses.

If your card is used fraudulently but you still have the card in your possession you will not be liable to pay for any part of the losses. You would probably still have your card in your possession if you are a victim of counterfeit skimming or card-not-present fraud.

It is important that you keep track of your transactions at all times, you should keep your receipts and check them off

against your statements as they come in and as soon as you find a discrepancy you must report it.

There is another issue here: I know from personal experience that banks make mistakes. And at least twice on my personal account I have been debited money that should not have been taken. Other tips for looking after your card:

Guard your card. Don't let it out of your sight when making a transaction.

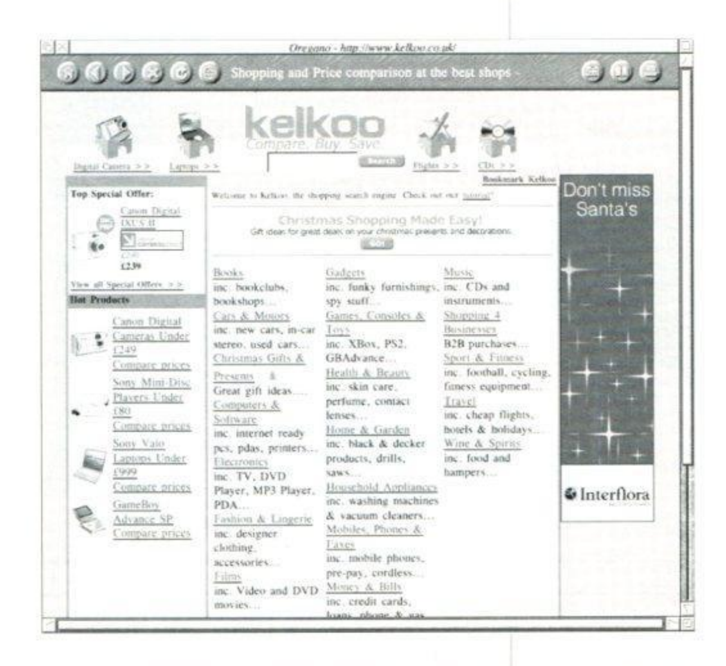
Carefully discard receipts from card transactions and other personal information (shred them if possible to prevent 'bin divers' from acquiring information about you and your cards)

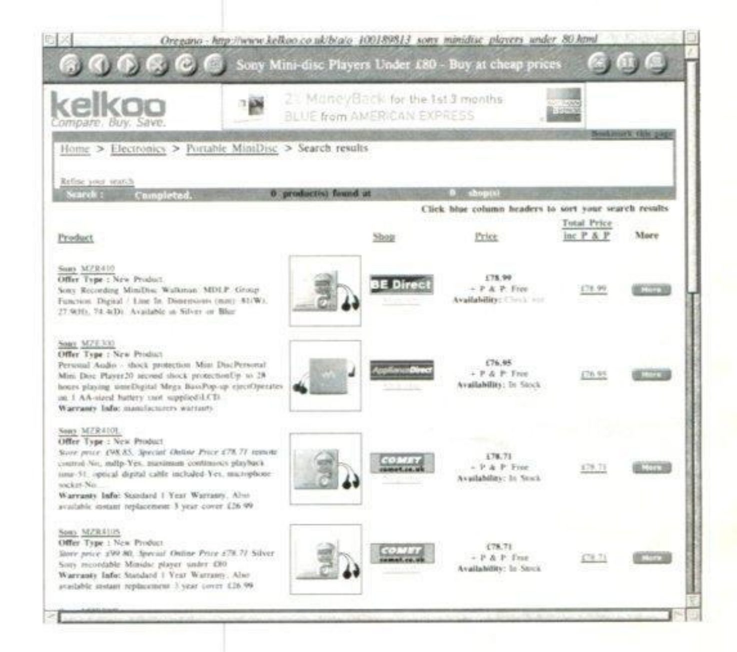
Check your statements carefully. If you find an unfamiliar transaction contact your card issuer immediately.

Never write down your PIN and never disclose it to anyone, even if they claim to be from your card issuer or the police.

When using a cash machine, be wary of anyone who might be trying to watch you enter your PIN and do not allow yourself to be distracted by anyone trying to talk to you.

*Steve Turnbull*
*steveturnbull@acornuser.com*




## Chip and Pin

The UK banking industry began its roll-out of 'smart' chip cards in spring 1999. The industry is complementing this with the introduction of a fraud-fighting programme to ensure that by 2005 most UK credit and debit card transactions, where a cardholder has been issued with a chip and PIN card and is present during the transaction, will be authorised by the customer keying in their PIN rather than by signing a receipt.

The embedding of a microchip into a debit or credit card to provide highly secure memory and processing capabilities. In addition to holding the same personal data as that on the magnetic stripe (for example, cardholder name, card number and expiry date), the microchip provides additional security features to safeguard against counter-feiting.

A PIN (Personal Identification Number) is a four-digit code either assigned to, or chosen by a cardholder to help prove that they are the rightful owner (the authorised owner) of a card when making a chip and PIN based transaction. For UK cardholders this code consists of four digits. For foreign cardholders this code may be longer. Cardholders will use the same PIN at point of-sale terminals and at ATMs with each individual card they hold. They may also choose to use the same PIN for all their cards.

Signatures are considered less effective than PIN as a means of proving the identity of the cardholder. The introduction of PIN means only those who know the PIN for that card will be able to authorise purchases made on that card. This is why it is very important never to reveal the PIN to anyone. The introduction of PIN shifts responsibility of identifying the cardholder away from point-of-sale staff and reduces the likelihood of criminals attempting to make fraudulent purchases. PIN also means that it will be possible to increase the use of unattended payment terminals in petrol stations, car parks, leisure booking (such as tickets and hotel checkouts) and accelerate the introduction of self-scanning in supermarkets.

PIN will be gradually introduced over the next two years aiming for a critical mass by December 2004. The aim is that most cards and point of sale devices will be chip and PIN capable by the end of 2004. Each retailer and financial institution will determine the timescales for upgrading point of sale equipment and rolling out chip and PIN cards.

One thing to remember though, if everyone has a PIN for every card that they own that they have to remember and not write down this could present a problem. I'm not entirely sure how many 4-digit codes I can remember. But if you write them down, you will be open to the accusation that you didn't keep the information safe and may be liable for any fraudulent payments in your name.

We shall see.

# PGP and GnuPG for secure e-mail

In 1991 Phil Zimmermann, an American computer scientist and security expert, released a computer program that would revolutionise electronic communication: Pretty Good Privacy, or PGP for short. Fearing that proposed legislation at that time might soon restrict the use of strong cryptography in the US, he released his program PGP into the public domain in order to make it widely available, as a means of forestalling any restrictions on its publication.

As Zimmermann's program spread rapidly around the world via the Internet, the US government saw this as a threat to its ability to monitor electronic communications. American export regulations treated strong cryptography as 'munitions', and Zimmermann was suspected of having 'exported' PGP. For several years he was under investigation and at risk of severe penalties, until the matter was eventually dropped for lack of evidence.

Thanks to Zimmermann's personal commitment and generosity, PGP has become the undisputed worldwide standard for secure e-mail. Versions are available for all major operating systems, including RISC OS. The various versions are generally interoperable, so that even people with totally different computer systems can use PGP to communicate securely.

PGP implements the very powerful technique of public-key cryptography. The program allows each user to generate a unique secret key and a matching public key. The secret key is stored in a computer file which is protected by strong encryption. Whenever the program requires it, this key can be unlocked temporarily by means of a passphrase known only to the user. The public key, on the other hand, can be publicised widely, just as people's telephone numbers are normally made freely available, so that others can contact them.

The basic idea is that a message intended for a particular user is encrypted with that user's public key. However, the message can be decrypted only with the recipient's secret key. This is what ensures privacy of the message, nobody else has access to the secret key required to decrypt it, and there is no known way to obtain the secret key from a knowledge of the public key.

Public-key cryptography makes it possible for people who have never had direct personal contact to communicate securely over the insecure channels of e-mail, without the need for prior exchange of secret keys. Moreover, the cryptographic methods used by PGP have been extensively studied and reviewed by some of the world's most respected experts in cryptography, so that all users can have full confidence in them.

## PGP and GnuPG for RISC OS

The latest version of PGP for RISC OS is version 2.6.3ia, which was ported many years ago by Gareth McCaughan from an early DOS version. However, since then PGP has become considerably more sophisticated, and version 8 is now available for Windows and other operating systems. The more recent versions of PGP allow a greater variety of encryption methods. As a result, users of the ageing RISC OS version can experience certain difficulties in using it to communicate with people who use more modern versions of PGP.

This limitation can be overcome by using the RISC OS version of GnuPG instead. GnuPG (short for GNU Privacy Guard) is a free and open-source alternative for PGP. It is updated on a regular basis, so that it remains compatible with all modern versions of PGP. It is fully compliant with the OpenPGP standard of the Internet Engineering Task Force. It even offers some extra features for expert users which are not available in any version of PGP.

GnuPG was first ported to RISC OS about three years ago by Stefan Bellon, who updates his version frequently to keep it in step with the original Linux version. Although GnuPG performs all the same functions as the most modern versions of PGP, it must be used from the command line, like the old version of PGP.

PGP for RISC OS is comparatively simple to use. It is only necessary to learn a few commands in order to use it effectively for secure e-mail. In fact, even this is not necessary, since user-friendly front-ends for it are available. In contrast, GnuPG allows a huge number of options and special features, and its use may appear daunting to the beginner. However, for most practical purposes only a few basic commands are needed, and these are very similar to those of the old PGP for RISC OS.

I understand from private communications that a certain well known programmer is currently working on a front-end for GnuPG. If such a front-end is released, it would make it much easier for many users to enjoy the benefits of public-key cryptography and to communicate with all users of PGP.

All the software mentioned above can be obtained through links on my Web site at **http://web.bham.ac.uk/N.M.Queen/pgp/acorn.html**, where the reader can also find a number of tutorials on installing and using either PGP or GnuPG. Since the RISC OS version of PGP is now rather limited in its functionality in comparison with more modern versions for other operating systems, I shall concentrate here on describing the use of GnuPG. Only the bare essentials will be covered in this article. Further details can be found in the tutorials on my Web site and in the documentation included with the software.

## Setting up GnuPG

The installation procedure is simple. Download the basic archive gnupg/zip and copy the entire contents to some convenient directory. This includes two applications, *GnuPG* and *GnuPGUser*, as well as a substantial amount of documentation.

*GnuPG* is the application that does all the work. *GnuPGUser* will contain all the data referring to you as an individual user, including some user-definable options and your secret and public keys. Both of these applications must be 'seen' by the Filer before you can use GnuPG. If you intend to use it frequently, it is best to ensure that the Filer 'sees' these applications during startup of your computer by placing appropriate references to them in your boot sequence. Some advice about how to do this is contained in the !Help file inside *GnuPG*.

Before using GnuPG for secure e-mail, you must first use the program to

generate a pair of secret and public keys. This is done by means of the command:

```
gpg --gen-key
```

Note that commands in GnuPG (unlike PGP) generally begin with a double dash. When you initiate the procedure for generating a key pair, GnuPG will offer a choice of several options. My recommendation is to select the default option for the key type, and a large key size to ensure high security for the foreseeable future. GnuPG will also ask for your name and e-mail address, which together will form a user ID to identify your public key.

To communicate with other users you will need to have their public keys, and also make your own public key available to them. GnuPG stores your collection of public keys in a special file known as a public keyring. If another user sends you his public key, or if you download it from a web site, for example, you can import it to your public keyring by means of the command:

```
gpg --import [keyfile]
```

where [keyfile] denotes the filename of the file containing the key.

You will also need to know how to export your public key into a file in order to make it available to other users. The appropriate command is:

```
gpg --export -o [keyfile] [name]
```

where [keyfile] is the filename of the output file into which you want the public key to be extracted, and [name] is any substring of your key's user ID which identifies that key uniquely in your keyring.

## Using GnuPG for secure e-mail

Suppose that you want to encrypt a message for another user. Assuming that you already have that user's public key in your public keyring, you can encrypt any file for him by means of the command:

```
gpg --encrypt -r [name] [file]
```

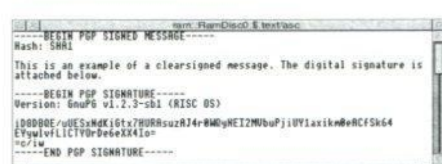
where [name] specifies the user ID of the recipient's key, and [file] is the filename.

GnuPG also allows you to add a digital signature to a message. A digital signature is a certain string of characters which depends on the message as well as on your secret key according to a complex mathematical formula. Anyone who has your public key can use GnuPG to verify that your signature matches the message. This is based on the fact that the secret and public keys reverse the action of each other.

The following is an example of an encrypted message:

-----BEGIN PGP MESSAGE-----
Version: GnuPG v1.2.3-sbl (RISC OS)

-----END PGP MESSAGE-----




If any part of the message is corrupted or altered in any way after the signature is added, even if only a single byte is changed, the signature will no longer be valid. The signature also contains information about the key that was used to create it. When GnuPG processes a signed message, it automatically reports who created the signature by specifying the relevant user ID. This authenticates the message, since only the owner of the matching secret key could have produced the signature.

To add a digital signature to an encrypted message, simply supplement '--encrypt' with '--sign' in the encryption command. In this case, GnuPG will ask for your passphrase in order to access your secret key for creating the signature. For the user's convenience, '--encrypt --sign' can be abbreviated as '-es' (with a single dash).

Suppose now that another user sends you an encrypted message. If it is properly encrypted with your public key, you will be able to decrypt it by means of the simple command 'gpg [file]', where [file] is the filename of the file containing the message. GnuPG will automatically check that you have the secret key required to decrypt the file and, if so, it will ask for your passphrase for accessing that key.

If the file that you decrypt contains a digital signature of the sender, GnuPG will automatically report this fact and tell you whether the signature is 'good'. A good signature confirms that the file is identical to the one originally signed by the sender.

Sometimes you may want to send a message in the clear, i.e. without encryption, but digitally signed to prove that it came from you and to enable any recipient to check that the message has not been altered. This process is called clearsigning. You can clearsign a particular text file by means of the command

```
gpg --clearsign [file]
```

GnuPG will then create another text file containing the message, but with a digital signature appended at the end. One of the accompanying figures shows an example of a digitally signed text message. The other figure shows a typical example of an encrypted message.

A file containing an encrypted and/or signed message can be sent to another user by e-mail by simply pasting it into the body of the mail or adding it as an attachment. Some of the popular RISC OS mail programs now include support for GnuPG, which makes it easy to encrypt or decrypt mail messages, and to sign them or check signatures from others, without the need to remember any particular commands.

If you have not previously enjoyed the benefits of secure e-mail, or if you have used only the old PGP for RISC OS, I recommend trying GnuPG. Admittedly, some people find the initial learning curve difficult, but it is worth the effort. The tutorials on my Web site may help you to get started. Once you get used to the software and begin using it to communicate securely with other PGP or GnuPG users, you will probably wonder how you lived without it.

Finally, if any readers have specific questions which they cannot resolve from the available documentation, I will be glad to help by private e-mail.

Nat Queen
n.m.queen@birmingham.ac.uk

# Brand New Future? Or New Future Brand?

Certainly the brand is changing, along with the format and the name. Acorn User will be moving to a new owner, publisher, printer and, although some of the contributor names will be familiar, the style of the magazine will be quite different. Along with all this we will be implementing what we think is a unique project in publishing.

To begin with we need to make clear who the 'we' is that is speaking. 'We' are Finnybank Ltd and 'we' produce Acorn Publisher magazine. As from the next issue we will also be producing Acorn User. So what's going to happen? Firstly we will not be replacing one magazine with the other rather we will be producing a fusion of the two. Before we explain what we've planned for Acorn User (and Acorn Publisher) I'll set out some of the problems that we hope to solve:

- the RISC OS community in the UK needs a magazine (preferably available through newsagents) that might be seen by users of all computer platforms;
- the RISC OS community needs a magazine that is clearly targeted at RISC OS users;
- RISC OS developers and retailers need one lead RISC OS magazine in which their wares are previewed, reviewed and advertised;
- many Acorn Publisher readers want a quality magazine that simply reflects their interests of graphics, desk-top publishing, web design and publishing;
- many RISC OS users want a general RISC OS magazine that has both quality and range and includes some favourite features from Acorn User over the years;
- both Acorn Publisher and Acorn User have names that are less relevant than in former years;
- any RISC OS magazine has to rely on contributors working out of good will (even if such contributors receive a small payment for their work) and expecting them to produce contri butions every month is probably expecting too much;
- with increased costs, including a recent postage rise, both magazines might have needed to increase their cover prices without a corresponding increase in quality.
- it is unlikely that Acorn Publisher would have been able to continue to pay its contributors.

We think we have managed to solve all the problems and, in the process, provided some new opportunities for the RISC OS world. Two assurances:

Acorn Publisher can continue to be produced by the same team and in the same format with only the changes that were already planned;

Acorn User will change in a number of significant ways, taking into account the wishes of readers and would-be readers, but will feature some of the best ideas of that magazine from over the years and all brought up to date.

## Grown Up Acorns?

It took a long time but finally the magazines have caught up with everyone else. We've all seen the need to drop the name Acorn but there hasn't been the opportune moment for either Acorn User or Acorn Publisher. As it happens Acorn Publisher was about to change at the next issue but we have now decided on a more radical change than that originally planned: "AP".

As from the next issue the new magazine, a fusion of Acorn Publisher and Acorn User, will be called Qercus. For the purists we apologise for the dropped U but without the U the name clearly stands out in Web searches. From Acorns we have developed into an Oak as classical scholars and botanists among you will have already appreciated. If it has slipped your mind: Quercus is the latin name for Oak.

## Two into one will go

Put simply there will be two elements produced under the Qercus title and each element will be produced every two months. Acorn User readers will now receive all issues of both elements: one every month; Acorn Publisher readers will receive just one of the elements every two months. We haven't forgotten the thirteenth issue. Both sets of readers will receive a special bonus issue of the magazine at the end of the year.

Most series will appear every other month giving more time for contributors to produce high quality articles. Major contributors will receive a small payment for their trouble and, while current Acorn Publisher and new Element 1 subscribers will receive an additional issue of Qercus for no increase in price, new subscribers to both elements of Qercus will receive an unsurpassed periodical at a price pitched between that of the two current magazines.

Each of the two elements of Qercus will be produced by a different team under the overall editorship of John Cartmell. The team producing Element 1 is already in place but we are still looking for more contributors and editorial assistants for Element 2.

Element 1: Qercus - A Fusion of AP & AU for Graphics & Design

We've already described the contents of one of the elements. This element of Qercus will be a RISC OS magazine dealing mainly with graphics, desktop publishing, web design, publishing, design and networking. As with the current Acorn Publisher it will have plenty of tutorials for specific applications but will present them in such a way that they can be followed by users of any similar application whether RISC OS or from another platform.

This element will include RISC OS and general computing news, comment and reviews of hardware & software and will be very familiar to current Acorn Publisher readers. Like Acorn Publisher just under half the editorial pages of Qercus Element 1 issues will be in full colour.

Element 2: Qercus - A Fusion of AP & AU for all RISC OS Users

The second element of Qercus will feature the other areas of RISC OS and will concentrate more on RISC OS specific news and comment. It will include programming features and tutorials from the use of Obey files to

WIMP programming, from design of Macros and Ovation Pro Applets to PHP for Web sites. Long-time readers of Acorn User will be interested to know that we intend to re-introduce at least one page that is yellow (listings). We will feature games (with an insight into commercial game design) and background to all applications other than graphics and desktop publishing.

We will include features on the use of RISC OS in education and business and introduce tutorials for both beginners and experts. We will feature RISC OS people in interviews and in evaluation of the work of developers. Moving from Acorn Publisher will come The Electronic Quill comment column, where readers are welcome to contribute to areas of RISC OS controversy. Of course there will be previews, reviews and long-term revaluations of software and hardware. Given the right support from contributors we will be bringing back *Info.

Qercus Element 2 issues will use the same magazine layout as Element 1.

## Advertising

Each month developers and retailers will have just one colour, A4, RISC OS magazine in which to present their products. Qercus will have the readership of both Acorn Publisher and Acorn User subscribers, and newsagent purchasers combined and all without general increases in charges. RISC OS Shows will be supported by Qercus as they have been in the past by Acorn Publisher and Acorn User. RISC OS User Groups will have free entries on a contacts page in all issues of Qercus (as in the current Acorn Publisher) and, where possible, details of meetings every other month.

## Acorn User Subscribers

You will continue to receive a magazine every month, that is both elements of Qercus. The content of Qercus will alternate between the two elements described above and together will produce a well-rounded RISC OS magazine.

## Acorn Publisher Subscribers

You will continue to receive a magazine (Qercus Element 1) every two months in a similar format as before. You can opt into the additional Element 2 of Qercus by making an extra payment or bringing forward your renewal date. As each subscriber's circumstance is different you will need to get in touch with us (preferably by e-mail or telephone) for details.

## Subscribers to both

We will add your subscriptions together so your renewal date will be put back. If you get two copies of the January issue by mistake please tell us so that we can put it right for later issues but don't return a copy; give it to a friend or donate it to a doctor's or dentist's waiting room instead. We won't charge you for that extra copy.

If you are an Acorn Publisher subscriber and get your copy of Acorn User by order at a newsagent please get in touch with us.

If you get your copies of Acorn Publisher and/or Acorn User from one of our agents overseas we will be in touch with them and there may be specific information for you included with this or your next issue.

## New subscribers

Choose Qercus Element 1: graphics & design issues — similar to the present Acorn Publisher magazine

or

Choose Qercus Elements 1&2 together for a new RISC OS general magazine.

It will not be possible to subscribe to Element 2 issue alone although individual issues of Qercus will be available directly from us, through newsagents in the UK, on-line from the Co-Comp shop, and from some RISC OS dealers and User groups.

## Get in touch

You can contact Finnybank by telephone 0161-969-9820 or by post at: Finnybank Ltd, 30 Finnybank Road, Sale M33 6LR or by e-mail to: **info@qercus.com**

For your convenience we are available by telephone during office hours and in the early evening; throughout December and January you can also contact us by telephone up to 10:00pm most Tuesdays and Thursdays (Christmas Day very definitely excepted).

## So what's coming up?

The January issue of Qercus will be a 'Graphics & Design' element and will go to all subscribers. In this — the first issue of Qercus:

- We do a more in-depth review of the A6 desktop hybrid computer from Stuart Tyrrell Developments;
- Roger Dye describes how to produce panoramas using the Composition program;
- Peter Newble continues his History of Type series;
- Walter Briggs takes time off from drawing mammals to produce a timepiece;
- We review the latest version of RComp's UniPrint program;
- For beginners to vector graphics we continue our Draw tutorial;
- Web Design for beginners? Web Wonder review;
- Using ArtWorks as a design program for Architects;
- The Electronic Quill - comments from readers;
- David Cowell illustrates how we can all produce fine art;

plus news; Contacts page; Cover illustration explained; and more about the future of Qercus.

Some articles are part of continuing series and, while all make sense without the previous issues, those of you who haven't subscribed to Acorn Publisher may wish to purchase back copies. The whole of volume 9 (the six issues published to the end of 2003) is available at a special price for Acorn User readers of £20 inc UK p&p (add p&p £4.20 Europe and £9.60 rest of world). If

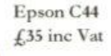
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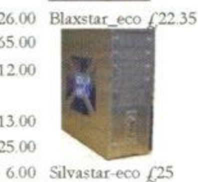
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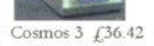
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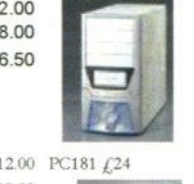
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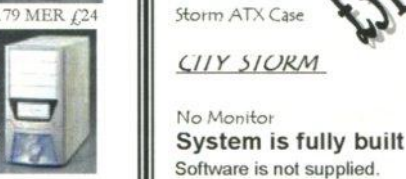
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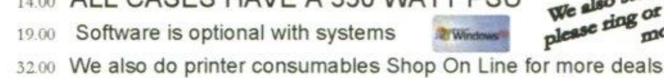
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The second issue of Qercus will be dated February 2004 and probable contents include:

- An introduction to WIMP programming - first of a series;
- Using databases - first of a series;
- Pluto explored - first of a short series;
- Genealogy for RISC OS - first of a series that will also include reviews;
- Review of the new Microbits hybrid computer;
- Star Info, continuing series introducing small applications;
- Microsoft in Europe, first in a series of reports on computing outside RISC OS;
- SW Show preview;
- Yellow Pages, listings from programming articles (also available as downloads from the Qercus site)
- The Electronic Quill - comments from readers;
- plus News; User group contacts and reports; and a number of other articles still in preparation.
- Qercus will be available from newsagents in the UK at £4.20 per copy or by subscription from Finnybank:
- Qercus: graphics & design
- 6 issues annually (bi-monthly) + special annual issue
- 29.95 (UK) £34.84 (Europe) £41.15 (World)
- Qercus: all issues
- 12 issues annually (every month) + special annual issue

(special offer prices apply for the two weeks following the publication of this issue of Acorn User)

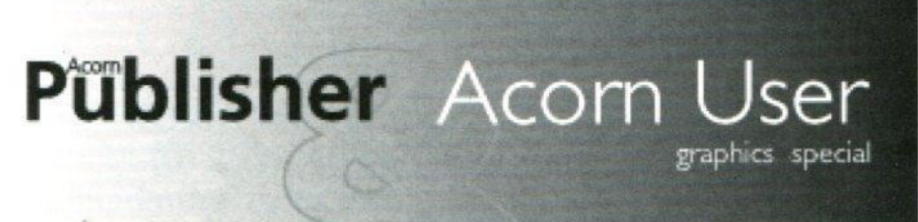
45.95 (UK) £55.05 (Europe) £66.75 (World)

Cheques for all Qercus products should be made payable to "Finnybank Ltd" - and sent to: 30 Finnybank Rd, Sale M33 6LR

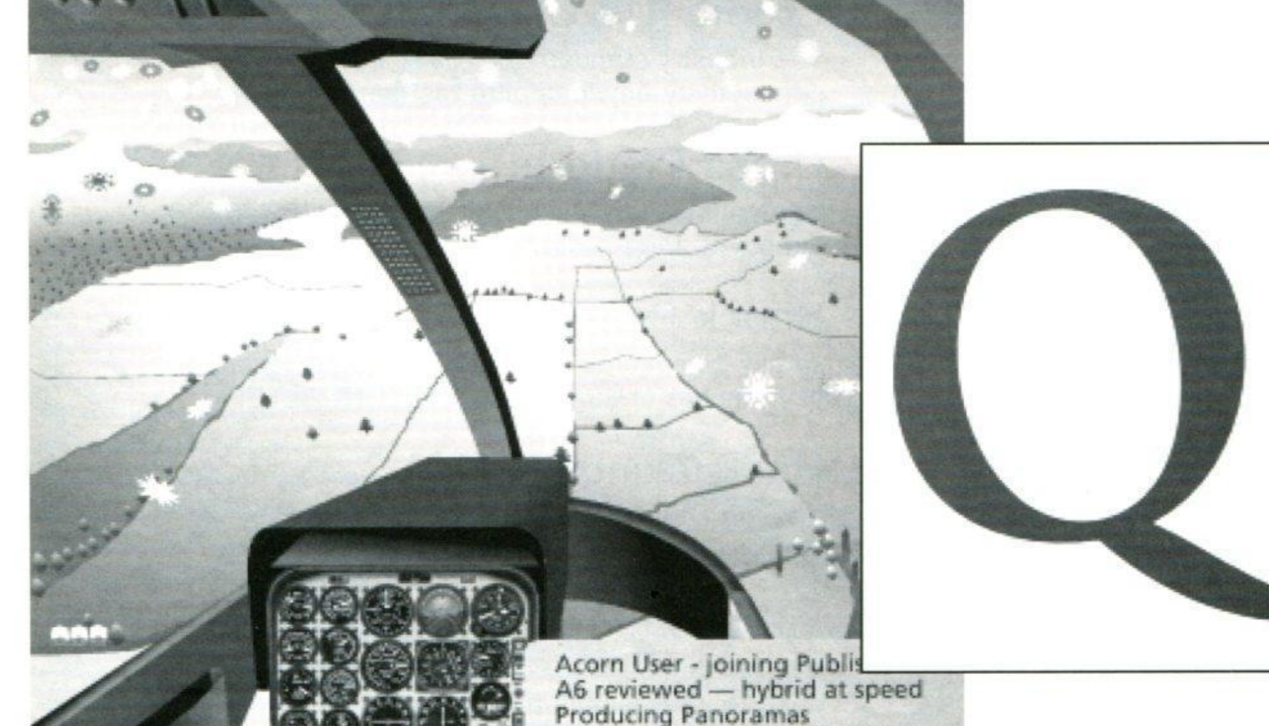
Payment by credit/debit card can be made by telephone 0161-969-9820 or through the on-line shop at **www.co-comp.co.uk/shop/**

There will be a binder available to store your copies of Qercus and with your help as readers and contributors we aim to make Qercus well worth keeping as a resource for the whole range of RISC OS computing.

John Cartmell, editor Qercus
the new Acorn User magazine
finnybank@finnybank.com




Qercus a fusion of Acorn Publisher & Acorn User magazines



# Big USB drives

It is partially true that you can't connect big USB hard drives to a RISC OS computer. The situation, slightly different to that given last month is this:

The USB mass storage protocol is badly defined, it is open to interpretation. This means that a company can create an interface which quite legitimately



conforms to the standard, and yet there won't be any standard drivers that work with it.

This is very bad news. What it means is that neither the Simtec nor Castle interfaces can work with all, or indeed any mass storage device. But there are some that do and these tend to be the pen drives (the one reviewed last month was supplied by Stuart Tyrrell).

Then there is the complication of DOSFS, this may have problems with large drives over 2Gb. But then again sometimes it doesn't.

However the good news is that everyone who also owns a PC can use the big drives and that means that HostFS on the VirtualRPC should be able to mount them and use them (even if they aren't removable as far as VRPC is concerned).

So here we are again with three very nice big USB drives, let's take a look at them.

## The Fortress

This one has to be my favourite, it is stylish and robust. Most hard drives can't withstand even a short drop but the Fortress portable hard drives can be dropped from a height of six feet onto concrete.

They come in 30Gb, 40Gb, 60Gb or 80Gb sizes provide a good way to transport valuable data in your pocket rather than on a portable which could be stolen, or worst still trying to take your desktop machine with you. They plug into the USB slot and are powered by it so there's no extra power supply



required.

The Fortress is distributed in the UK by Rosco Solutions Ltd E-mail: **sales@4tressuk.com** Web: **www.4tressuk.com** Tel: 01245 47 41 45

## Anypak

It has to be said that the Anypak doesn't have quite the pizazz that the Fortress has, the name alone could probably do with some tweaking. But then again the Anypak has its own features.



It claims to be the lightest, slimmest and smallest hard disk portable storage device, and it certainly is a slimline thing. The back of the pack enjoys a flavour of Korean English that takes me back to the dot-matrix printer manuals of the 80's. However the important stuff is that it comes in five sizes: 20Gb, 30Gb, 40Gb, 60Gb and 80Gb.

As usual no external power is required and like all USB devices it can be plugged in and out with the system automatically mounting and dismounting it.

It comes with its own belt pouch, USB cable and little chain to ... well, I'm not sure but it looks cool, as does the brushed aluminium look.

Where the Fortress is macho, the Anypak is stylish. You can get it from Online Systems (UK) Ltd Tel: +44 (0) 8707 406595; e-mail: info@onlinesystems.co.uk; and web: www.onlinesystems.co.uk

## Siwara

I really really wanted to be enthusiastic about this product because it comes from HKi Systems who make those really cool, tiny PCs. BUt this really isn't up to the grade.

Although a similar size to the Anypak, it is a bit thicker, it's made of cheap black plastic with tacky white lettering. But, to be honest, it was the lead that made me cringe.

This is a standard USB mass storage product (also plugs into Firewire and VOCS) however the unit itself has a "centronics" style socket which I assume caters for all the connection products depending on which connections are active. It is very non-standard.

It comes in the usual sizes 20Gb, 40Gb, 60Gb and 80Gb GB. It's main selling point is that it comes with automatic backup software which could be handy. Plus the ability to behave like a CD Tower for a Windows machine.

I really wanted to be enthusiastic but I can't be. But you can talk to HKi on Tel: 020 7426 4890; e-mail info@hki-systems.co.uk; Web **www.hki-systems.co.uk**



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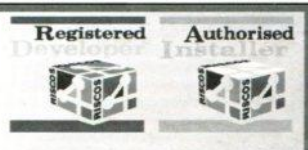






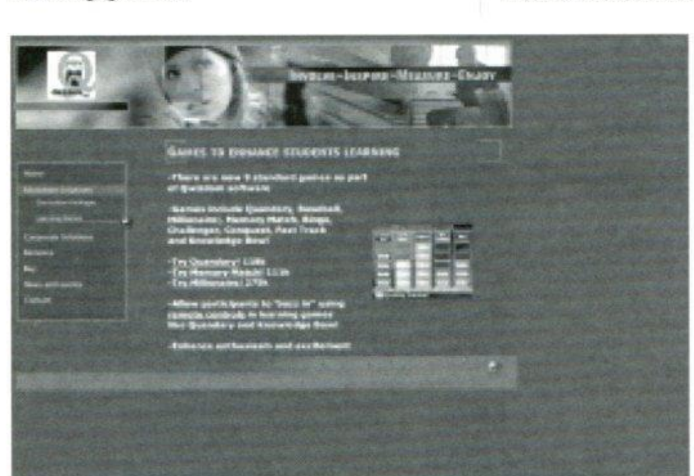






# Quizzical releases

Qwizdom (028 91 863342) have a new student response system. Using response pads, these provide a way to generate excitement and student interest. Using the multi-key remotes, individuals can respond to True/False, Yes/No, Numeric, Multiple choice and Sequence questions posed during lessons, tests, reviews, or learning games.



Interestingly, Qwizdom is the only response system designed to give students feedback on the keypad through flashing LEDs. With fun learning games, dynamic presentation options, real-time assessment, and easy authoring tools already available visit **www.qwizdom.co.uk** to find out more.

## Working with friends

Watch out for news on Edumate. A web-based learning and management solution for schools and further education colleges, this originates from Australia and comes to the UK courtesy of Asymmetric Solutions. Provided as part of a comprehensive service, providing for school management, administration and reporting functions; teaching support such as curriculum and lesson planning; assessment; e-learning, and can be used as a set pf collaborative tools across the school community, including school management, teachers, students and parents.

Redlands is one school already using the solution ... this Sydney Church of England Co-Educational Grammar School, adopted the Learning & Management System in 2002 to provide an integrated systems infrastructure to replace its variety of disparate systems for billing and reporting, and manual processes for gathering data and transferring between systems. These systems did not provide the information access and depth of understanding required.

The technology limitations created issues across the school: management were unable to source reporting easily; teaching staff shouldered much of the administration burden while being unable to source student information or educational resources easily, and parents could not gain access or provide information on students' activities, progress and timetables. Ultimately, the amount of time teachers were being required to spend on administration to achieve performance indicators was detracting from the focus on planning and delivering quality teaching.

In addition, Redlands' management team recognised that the success of the solution would be dependent on acceptance by teachers, administrative staff, students and Edumate was an attractive option because it allowed an automated processes to be implemented, but at the same time, is very easy to use.

Edumate allows Redlands to configure how it should be used according to the school's particular needs, and not be forced into a way of working which would not allow the school to meet its educational, financial and cultural goals. Basing the solution on browser delivery means that it can run across a significant portion of the existing PCs installed in the school. One of the other advantages of Edumate is its workflow capability, which can be integrated into the other areas of school activity. For more information ring Asymmetric Solutions +44 7775 602259 or access **www.asymmetrix.com**

## Mathswork

More news from Australia now via Kilbaha Multimedia Publishing. They are introducing their interactive maths programs to the UK this year. Entitled Flying with Fractions, Flying with Decimals and Flying with Factorisation they are aimed at consolidating and revising with Years 7 and 8.

For instance, Flying with Fractions covers what is a fraction, parts of a fraction, fractions and the numberline, mixed numbers, improper fractions, equivalent fractions, highest common factor, counting in fractions, lowest common denominator, addition, subtraction, multiplication, division, word problems, algebraic fractions, lowest common multiple, and so on. All for £190 which includes a full site licence and all future upgrades. You can find out more on **www.chemas.com**

## Thinking time

Think2gether offers schools and colleges facilities to provide their registered students with secure learning areas by logging on with user IDs and passwords. It also enables distance learning for students, who are unable to attend classes. This Sunderland-based company are working on a new thumb print recognition system as part of the attendance module which will enhance their provision of secure chat rooms and forums, which can be monitored by the education facility. It also enables students and teachers to share and exchange files on-line.

Users of the Think2gether system include Leicester Action Zone and South Tyneside City Learning Centre. It has also attracted the interest of the business community, with the world's largest business referral organisation – Business Network International (BNI) – currently implementing it. To find out more ring 0191 482 7810 or go online to **www.think2gether.com**

## Sweet and simple

2Simple Software have added more product to their stable for the New Year.

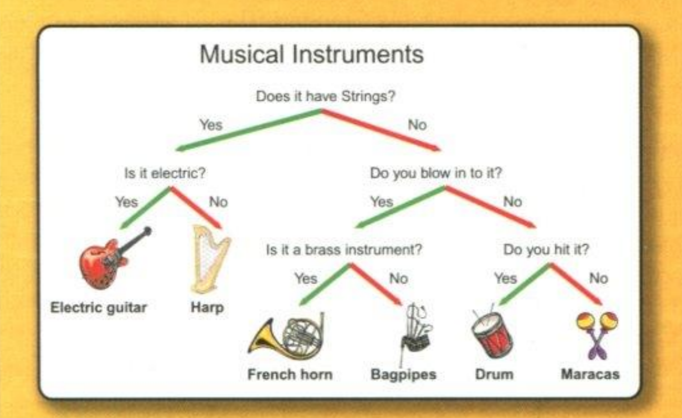



**Kudlian Soft is delighted to have had our Ask Oscar application short listed for a BETT 2004 award in the Early Years and Primary Software category.**

## The Most Intuitive Branching Tree Database for Education

Ask Oscar is the ideal application to help develop children's skills in using a branching database. The application allows children to create branching trees containing pictures and text.

- Ask Oscar uniquely allows you to create, sort, edit and view the tree all in one single display. Children can visually see the tree growing as they enter their questions and sort the tree.
- Items smoothly glide across the screen.
- Whole groups of items can be easily added to the tree from a wide range of picture groups.
- Ask Oscar encourages many types of learning activities by using its features of sorting, finding and testing.



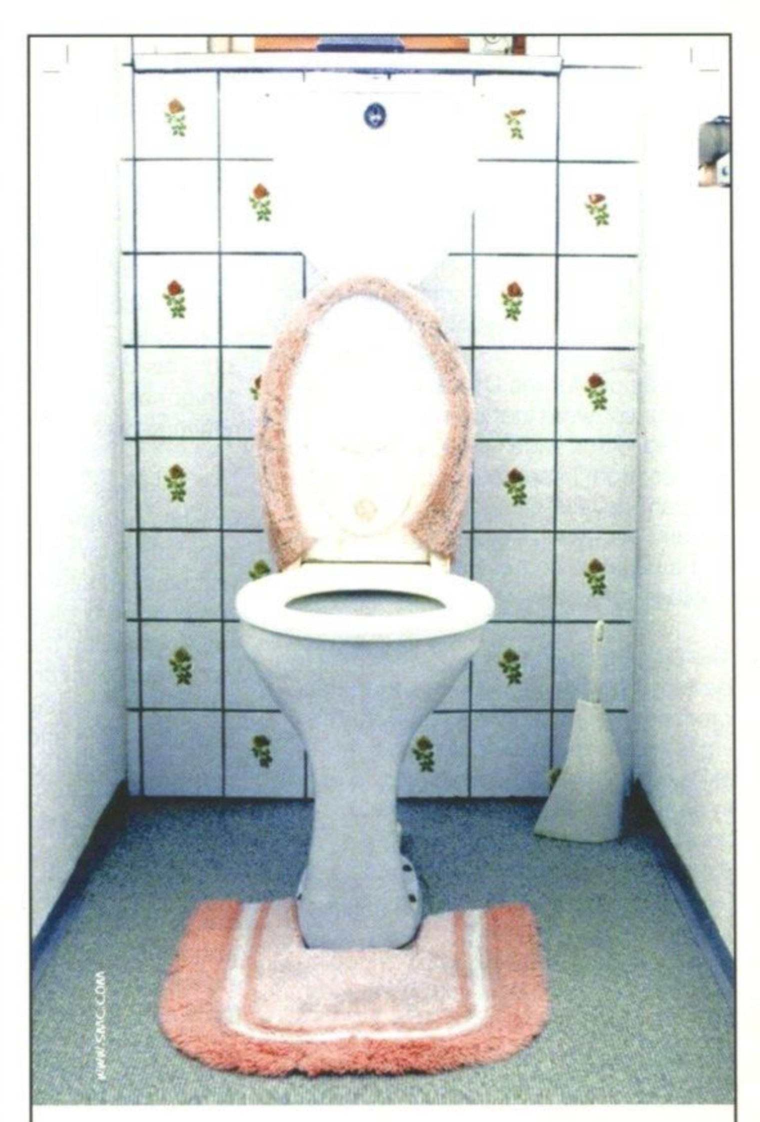

- The tree can be viewed at different scales.
- Powerful printing options allow the tree to be tiled across many pages to create a large wall display. Items can also be printed separately from the tree, creating an additional resource.

Ask Oscar is available for Windows and Mac OS X operating systems.

Come and meet Oscar and the rest of our products at BETT 2004 on stand M100.

8A Nunhold Business Centre, Dark Lane, Hatton, Warwickshire CV35 8XB
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Offer valid until January 31st 2004 or while stocks last.

2Simple Music Toolkit comprises six fun and easy-to-use activities for Key Stage 1 and 2, ranging from simple exploration of sounds and beats to more complex tasks such as playing on a keyboard, composing onto a score sheet, and even synthesising many different instruments into a single composition.

Also look out for the Developing Tray; a piece of software that can successfully be used with a wide variety of ages and abilities, from infant to adult. The program gets its name from the fact that the text evolves in much the same way that a negative comes into focus in a photographers developing tray.

The Developing Tray is a powerful aid to developing reading strategies from the process of predicting the text from the limited clues available calls upon the skills essential to a good reader, to use in groups where the discussions provoked broadens the language experience to include listening and talking as well as reading and writing.

By simply changing the text Developing Tray can be adapted to support a wide range of reading activities. The Developing Tray Editor provides a quick and easy way for teachers to input their own texts, anything from a nursery rhyme to a Shakespeare sonnet, and customise it to suit their particular student's needs. To find out more contact 2Simple on 020 8203 1781 or go to **www.2simple.com**

## All seeing, all feeling

Displaymate Touchscreens (01494 724 113) has just e re-launched itself as Interactive Technologies Limited (ITL) and has a new range of front projection interactive whiteboards plus new Interact software which comes with all ITL whiteboards. This offers teachers several benefits including substantial syllabus support to make lessons easier to organise in addition to being quick and easy to learn and use.

All ITL interactive whiteboard products respond to touch for annotation - no stylus or pen required. ITL will also be showing a brand new range of slim-line plasma and LCD interactive overlays, offering a touchscreen overlay for every plasma or LCD display currently available from brand leading manufacturers for sizes from 30ins right up to 61ins.

## Smoothly does it

Smoothwall specialises in Internet security, including firewalls, VPNs and content filtering solutions. It has a focus on educational establishments. Corporate Guardian is now in Version 3.0. This Web content filter and proxy server has been designed for use on networks with an existing firewall.

New features include improved reporting facilities providing more detailed information on user activity, attempts to visit blocked sites, bandwidth use and so on; there is blocked page customisation including the ability to suppress the display of information such as the reason why the page was blocked, user configured text and the ability to include your own graphics; then there's independent filter-rules groups which permits different filtering criteria to be applied to different groups of users; also look out for the new non-administrator user feature which lets you update the web filtering configuration but not for example the network configuration of Corporate Guardian.

This is especially useful to schools where it can allow teaching staff to take responsibility for Web content filtering. Finally there are cache server enhancements improving response times by serving repeat requests for a Web page from Corporate Guardian's local cache, instead of re-retrieving the page from the internet each time a different student wants to view the page

Unlike many Web content filters, SmoothWall Corporate Guardian uses multiple detection mechanisms to protect students from objectionable Web site material. The most powerful of these is the dynamic word and phrase analysis of received web pages, from which is derived a categorised numerical analysis of the page content. The wide list of categories includes pornography, violence, drugs and gambling. Should the derived figure for any category exceed an adjustable user configurable threshold the Web page is blocked.

SmoothWall Corporate Guardian can also filter Web pages using its blocklist of known bad domain names, URLs and IP addresses. The blocklist check is a secondary filtering mechanism. The Guardian software allows the administrator to make their own additions and deletions to the blocklist so that pages that would normally be blocked are allowed through and vice versa. Extending this concept further is the option to configure a whitelist, where access is restricted solely to the Web sites or URLs listed in the whitelist. Log on to **www.smoothwall.net** to find out more.

## Fun for youngsters

Sherston (01666 843200) have three new programs to make maths, history and geography more fun. *Fizzy's First Numbers* asks children to help Fizzy and the number friends as they explore the world of number. A range of activities, great graphics and narration combine to help young children practice and develop many essential counting skills all for £39.95.

Also look out for the new version of *Elf Tales* for Foundation and Key Stage 1. Puzzles combine with ordering, comparing, sorting, sequencing, time, logic and length problems all of which you must solve if you are to find your way through this classic Adam and Sandra Hostler adventure. There are eight activities in total with two levels of difficulty with gentle humour and stylish graphics all for £44.95.

Or how about entering the world of Magic Grandad. The TV series is a great resource for Years 1-2 and here they can explore over 80 resources from video clips to photographs and artefacts as they join Magic Grandad on a Seaside Holiday for £49.95.

Another intrepid explorer is Barnaby Bear. With TV and websites already at his disposal *Where in the world is Barnaby Bear?* takes children to six locations where there are different activities to take part in. There are a huge number of photographs and fun features as they explore different countries and cultures. Aimed at 5 to 7-year olds the cost is £49.95.

## Microsoft deal

Schools across the UK could save up to £50m on Microsoft software over the next three years. The Education Secretary, Charles Clarke, said Microsoft had reached an agreement with the

government's educational technology agency, Becta, with reductions in cost taking effect from 1 January 2004.

They would amount to £46m over three years in England, with a further £2.5m-3.5m in Scotland, Wales and Northern Ireland. The arrangement involves Microsoft cutting its "factory gate" prices to retailers - schools should still shop around for the best licensing deal, Becta said. Schools which used other company's products were under no obligation to switch - good of them that!

## All in the mind

January sees the launch of a new Internet-based teaching and programming tool for LEGO Mindstorms for Schools providing a powerful new alternative for teaching robotics. Teachers will have online access to lesson plans, sample programming and tips for using the LEGO Mindstorms for Schools concept via a new UK web site. Pupils will be able to program a virtual LEGO brick on line, using a variety of simulations from beginner to intermediate levels. The site will charge a subscription fee for access to the software, which can be paid for through eLearning credits.

## It's good to talk

The BT Learning Centre (**www.thebtlearningcentre.com**) gives pupils of all ages the chance to continue learning online at home, while following the curriculum at school. Alongside RM's Living Library, currently used in schools by over 3.5 million children, the service also provides more than 100 subject specific titles from the UK‹s leading educational content providers.

For just £3.99 a month pupils can improve key skills and save time while researching projects. Custom-built user interfaces, specific to different age groups, have been developed for the service to ensure that the relevant level of detail is included, and the style and language is appropriate regardless of whether users are four or forty. Older students and adults are catered for with a wealth of materials for A Level and beyond via Amazing Grades and other focussed materials from just £2 per subject.

The BT Learning Centre provides a School Partnership Scheme, an initiative designed to benefit schools through its subscribers. Every family that subscribes for three consecutive months or more, will nominate their chosen school to receive a one-off payment of £3.00. The money raised can then be used to fund further learning resources of their own choice.

The BT Learning Centre has been available to narrowband users, through any ISP, since March 2003. Subscription gives customers access to Living Library plus two further titles. These titles can be swapped after just one week's use, enabling parents to constantly adapt their child's learning to the subjects they are studying or revising in school.

Pam Turnbull
education@acornuser.com

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## History is bunkum

With the historic blockbuster on the rise since the release of Gladiator and the imminent release of Troy, are film moguls the right models for teaching history? Viewed as a whole these films tell us more about the time they were made in rather than the time they are purporting to describe. particularly interesting is the role of women in such films, but whole dissertations about this have been written so we won't go into this here.

But using movies, documentaries (current and of the time) requires students to question ideas and search for collaborating evidence proof from source materials. It also leads them to think about audience, accepted norms and morality of the time of production before we even touch on the parallels with current issues.

DVDs allow for quicker access and better scene freezing so here are some to promote thought and discussion. There is a lot out there, so we've concentrated on those dealing with issues of WW2. There are some obvious holes such as Schindler's List but we've stuck to DVDs and have ignored turkeys such as Pearl Harbour and US "made for TV" movies:

The World at War (1974) - A series of documentaries about World War II,

Hitler - The Rise of Evil (2003) - Profiles the life of Adolf Hitler as a child and his rise through the ranks of the National German Workers' Party prior to World War II.

Band of Brothers (2001) - Story of Easy Company of the US Army Airborne Paratrooper division and their mission in WWII during Operation Overlord.

The Longest Day (1962) - The events of D-Day told on a grand scale from both the Allied and German points of view

Australians at War (2001) - Veterans speak about their experience of war from the Boer War to the present day

Churchill (2003) - Chronicles the life of the wartime leader with a selection of diaries and letters as well as family recollections.

Charlotte Gray (2001) Based on the true story of a young woman who went behind enemy lines.

Extravaganzas of the Third Reich (2004) - The mass events of the Third Reich including parades, rallies and demonstrations.

The Great Escape (1963) Again based on a true story, it is the definitive Prisoner of War movie.

The Pianist (2002) the true story of Wladyslaw Szpilman who managed to survive in the Krakow ghetto

# STRONGARM PERFORMANCE

# ARM7500 PRICE

## The new A6 from Stuart Tyrrell Developments

Designed from the ground-up to complement VirtualRPC-SE emulation technology, the A6 presents a familiar RISC OS environment in a machine little larger than a stack of A4 paper.

Capable of running both RISC OS and Windows applications, users can expect day-to-day RISC OS performance which meets or exceeds the fastest traditional StrongARM machines. Disk and memory-intensive applications will take advantage of the modern machine architecture to deliver massive performance increases. All at a price point associated with ARM7500 based machines.

All software is installed, starting-up into a "ready to go" RISC OS environment. Of course users may easily run Windows applications should the need arise.

The A6 is manufactured to exacting standards for Stuart Tyrrell Developments by Advantage Six Ltd.

All machines are complete with DVD drive or DVD/CDRW, fast hard drive, floppy disk, Barton-cored 2500+ CPU, 333MHz DDR400 memory, GeForce 4 graphics, 56K modem, 10/100BaseT networking, USB, Firewire and Optical audio. Virtual RPC-SE, Windows XP and a fully licensed copy of RISC OS 4 are supplied and RISC OS Select upgrades may be used. Keyboard and mouse are of course included, along with speakers where they are not integral to the monitor.

A6B: Base unit/DVD/40G HD/256MB RAM
£599+VAT (703.83 inc)

A6: 15" TFT/DVD/CDRW/80G HD/512MB RAM
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A6DB: 17" TFT/DVD/CDRW/120G HD/512MB RAM
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Carriage: £25+VAT (29.37 inc)




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# The Secret Return Of The British Boffin

An aspect of RISC OS computing that is often overlooked is the fact that it is British. On the back of my Kinetic Risc PC is printed, "Designed in Cambridge, England - Manufactured in the UK." Likewise the Iyonix.

As we launch into 2004, an American operating system dominates the world. Even so, British cunning and ingenuity has recently seen the triumphant launch of a software product, Virtual Risc PC, that allows the rival RISC OS to run on hardware built to feature Microsoft's vision of computing.

As a nation we should be proud of achievements like the Iyonix and Virtual Risc PC. More than proud, we should celebrate them. It is to do so that Francis Spufford has written his book, "Backroom Boys".

The early genius of Acorn Computers Ltd and their breath-taking 1984 game, Elite, provides the backbone for one of the book's six chapters. More than just reminisce about the past, however, "Backroom Boys" places six British technological achievements into a historical context that gives insight into what it is about our country that can result in the Brits, every once in a while, emerging with a product or an idea, capable of revolutionising the world.

The book begins with a look at what many historians must regard as the foolish British involvement as a player in the days of the space-race. Based upon the UK's share of pickings from captured German V2 rocket science of the Second World War, a woefully underfunded, UK flirtation with space culminated in the placing of a satellite, Prospero, in Earth orbit in October 1971, using an all British rocket system, Black Knight.

However, following the successful American moonshot of July 1969, space was seen as an expensive and out of fashion place to be. In 1971, the public no longer tuned in to see the men walking on the Moon. The politicians cancelled the UK's space programme, not fully appreciating that placing satellites in orbit was to become big business in years to come.

Next, Backroom Boys turns to the story of commercial supersonic flight: Concorde. With the aircraft having flown its final flight recently, this is surprisingly topical while also being a salutary lesson in how the future often does not shape up as the visionaries initially predict. One starts to appreciate what a roller-coaster ride working with cutting-edge technology can be as politics, money, and shifting circumstances conspire to thwart engineering genius.

The pages on Acornsoft's space adventure, Elite, manage to capture well the feeling of magic that surrounded computing in the early and mid eighties. With traditional British industry in sharp decline, a new type of technologist was emerging; the software engineer. Anyone could grab an initial stake armed only with a BBC micro and time on their hands. Enter a couple of Cambridge undergraduates, David Braben and Ian Bell, with a heady combination of clever mathematics, a strong sense of game-play, and a talent for coding their ideas in 6502 assembly language.

However, even as the market boomed, and Elite's runaway success screamed at Acorn what it was that the country's youth really wanted from a computer, Acorn got it wrong. An ineffective TV advertising campaign emphasising the "Educational" value of the British machines failed to create the anticipated sales from the stock already built. By the spring of 1985, Acorn had gone bust and been bought up by the Italian company, Olivetti. Although down, not quite out, and destined to rise again, the BBC Micro standard was no longer in a position from which it could realistically hope to dominate the world.

If the first half of Backroom Boys is about heroic failure, the remainder endeavours to show that lessons were learnt. Chapter four looks at how Britain has become a world player in the Mobile Phone business which is based around the (what was originally Acorn's) low-powered ARM micro-processors and an operating system with its roots in RISC OS. This time the American's got the early days of an emerging technology wrong and author Francis Spufford looks at the how and the why as well as the technology itself.

In many ways, the penultimate section of this book is its most profound. It investigates some of the deeper motivations of those who spend their lives doing science or working with leading edge technology. It looks at what is termed "the gift economy" in which it is the respect from one's colleagues that is of greater value than the monetary reward. It takes a detailed look at the

consequences of business muscling in on science to monopolise what is, morally, the property of all mankind.

The point of focus here is the Human Genome Project in which all three billion of the chemical bases that make up the genetic code of human beings were to be mapped out. In May 1998 the company, TIGR, (pronounced "tiger") tried to wrestle this project, for financial gain, from the American Government's scientific institutions. Funded by the taxpayer, these institutions were committed to releasing the decoded information as they obtained it, for free, into the public domain via the internet.

Needless to say, the same information from TIGR would not be free and any scientist wanting a piece of it would have to pay heavily. TIGR's shame was to claim it wanted the American government to let TIGR do the research so that the Government could save taxpayers' money. Carefully, the book explores the dire consequences this monopoly of information would result in, for the Human Genome will be central to research in biology for decades to come. The taking on of TIGR by the British via political cunning and a conviction that America needed help to be saved from itself, is a fascinating tale that is told with passion and style. The description of the "industrial revolution" in biology that the resulting race demanded is an exciting and stimulating read.

The book closes where it began, in the physical void of space beyond the Earth's atmosphere. On Mars, in fact. It concludes by bringing us right up-to-date with the story of Beagle 2, the UK's mission to land a probe on the surface of the red planet, Christmas morning, 2003. Francis Spufford has cleverly realised that in the time since Beagle 2's launch in May and prior to its landing at Christmas he can get a book out containing the story of how Beagle 2 came to exist which, as the craft floats for seven months through space, will not date. Published on November the 6th, Backroom Boys contains this clever ploy to make the book relevant to what is about to happen. And who knows, maybe Beagle 2 will settle the question, "Is there life on Mars ?".

Backroom Boys is a good read for anyone interested in technology, its interaction with history and politics, and the human characters striving to realise what they sense is possible, but which does not yet exist. It weaves together several apparently separate strands of recent times into a coherent whole, in an entertaining and thought provoking way. The Acorn involvement is well handled and captures a period of history that it has become fashionable to forget. If you are looking for some enlightenment as we fast forward into the future, then this book provides.

Martin Hansen
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